

*With the Compliments of the
Medical Officer of Health.*

Bridgend Urban District.

ANNUAL REPORT

OF THE

Medical Officer

AND

Inspector of Nuisances,

ALSO

Report on Factories and Workshops,

For the Year 1915.

WYNDHAM RANDALL,

Medical Officer of Health.

W. F. TUDOR,

Surveyor and Inspector.

W. H. Jones, Printer & Stationer, Bridgend.

The Bridgend Urban District Council.

To the Chairman and Members of the Bridgend Urban District Council.

GENTLEMEN,

I beg to submit to you my Thirty-first Annual Report, for the year 1915, and to lay before you certain tables of Vital Statistics, together with other tables prescribed by, and filled up according to instructions received from, the Local Government Board; the Report of the Sanitary Inspector is appended.

THE AREA.

The result of a measurement on the basis of the most recent Ordnance Survey, showed the area of the District to contain somewhat more than 700 acres. Oldcastle, 414 acres; Newcastle, 286. This was the area up to 31st March, 1905. After this date the District was enlarged by the addition of certain portions of the two parishes of Coity Lower and Daudy.

Thus until 1905 the district consisted of	...	700.757 acres
with the added portion of Coity Lower	...	438.372 acres
The added portion of Daudy	...	74.577 acres

The present district consists of	...	1213.706 acres
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The district has since been divided into three Wards, named respectively the North, the South, and the West.

The North is divided from the South by a line drawn from the river through the centre of Water Street, along the centres of Queen Street, the Rhiew, Nolton Street, Brackla Street, and Brackla Lane. The West consists of Newcastle Lower and the added portion of the Parish of Daudy, on the west side of the river.

North Ward	...	...	...	...	396.732 acres
South Ward	...	...	...	...	456.015 acres
West Ward	...	...	...	...	360.959 acres
District	...	...	...	...	1213.706 acres
Density of North Ward	...	...	...	9.89	
Density of South Ward	...	...	...	6.14	
Density of West Ward	...	...	...	4.98	
Density of the District	...	...	...	7.02	

The higher density of population in the North Ward is accounted for by the facts that the Workhouse—population 225—is situated in the Ward; and that house building has spread almost to the boundary of the district.

TOPOGRAPHY.—The town of Bridgend is situated about 2 miles to the south of the outcrop of the South Wales Coal Field, and about 4 miles north of the Bristol Channel. The river Ogmore flows through the town, dividing it into two unequal portions. The portion to the west of the river is called Newcastle and forms part of the ecclesiastical parish of that name; that to the east is called Oldcastle. For civil purposes the Urban District now forms one parish—that of Bridgend. The river Ogmore, together with the three large tributaries which join it north of Bridgend, rises in the coalfield, and flows from north to south. It is a rapid stream, falling a considerable height in the 13 or 14 miles of its course.

GEOLOGY.—In the northern portion of the Urban District, the part bounded on the western side by the main line of the Great Western Railway and on the eastern side by the Llynvi and Ogmore Branch, the subsoil consists of the well-known Quarella beds; a hard sandstone of Rhætic age, much used both locally and elsewhere for building purposes. A long but narrow portion of the same formation (what is called by Geologists an “inlier”) extends from Coity Fields in a N.E. direction towards Coity. This inlier has been caused by the action of the Coity brook in cutting its way down through the lias and exposing the Rhætic beds which lie beneath. Of this portion there is no very good exposure, as it has not been quarried.

With the exception of these examples of the Rhætic beds, the whole of the rock underlying the Urban District consists of the Lower Lias. The beds of Lias are of the normal type, consisting of alternate beds of limestone and marl or clay. The finest exposure of these beds is in the great quarry east of the railway station. This, and the railway cutting near it, were described in detail many years ago by the well-known geologist Charles Moore. Over 80 separate beds of limestone, and an equal number of clay, are exposed in this quarry. Further east, the cutting of the Vale of Glamorgan Railway exposes another very fine section. Both here and in the railway cutting just outside Bridgend Station (as every railway traveller must have observed), the rock is much disturbed. There are several sharp undulations, the folds of which range generally east and west, and some crushing.

The soil formed by the Lias is a thick sticky clay, giving rise to very wet land, and needing a great deal of “working” to make it suitable for garden purposes.

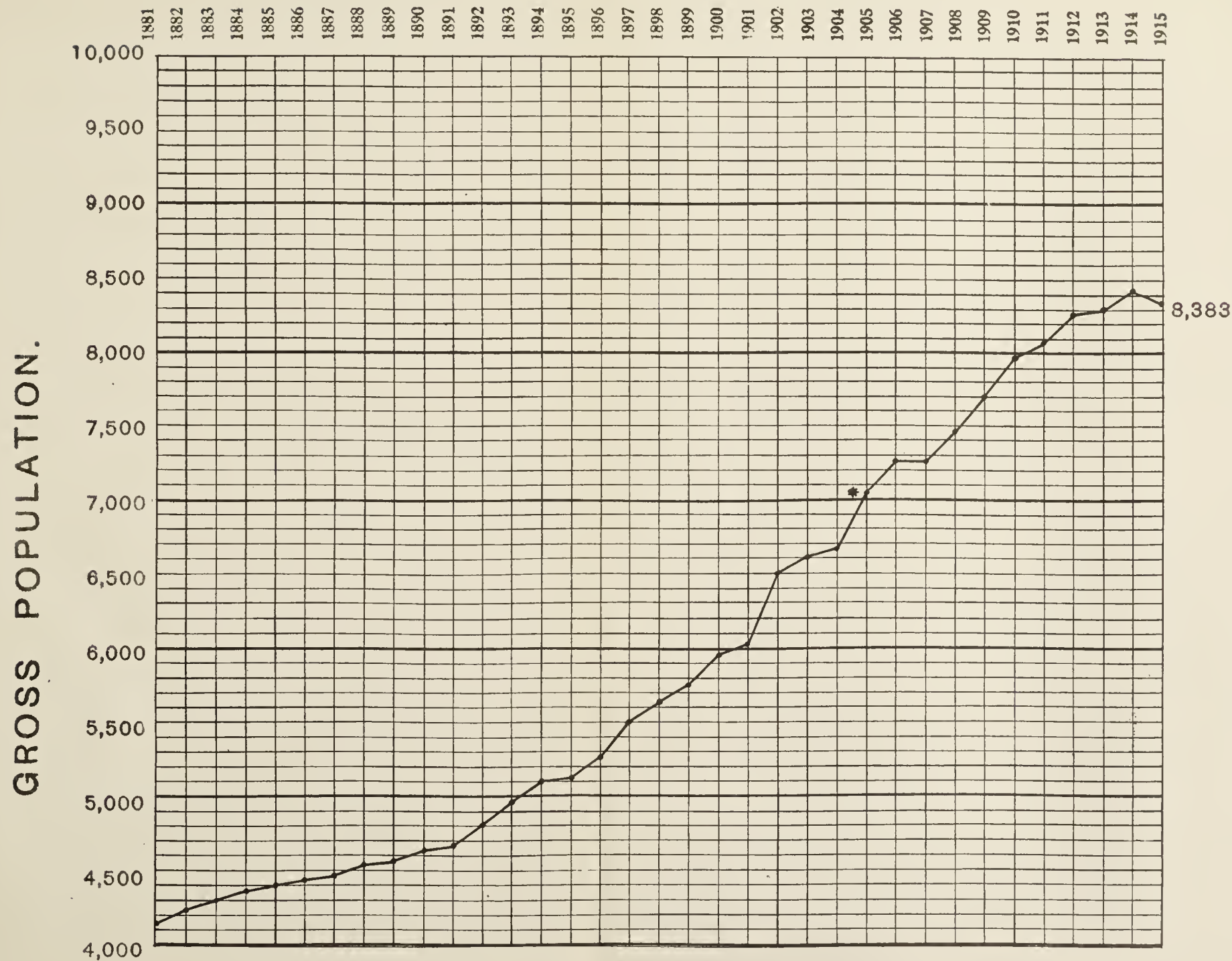
The lower part of the town is built upon the alluvial flat formed by the Ogmore river, the soil of which is alluvium and river gravel, covering the Lias which lies underneath. A more striking feature, however, than this is the high-level gravel. Commencing outside the Urban District some distance north of the Coity Railway Junction, it forms a great flat past Quarella and Cae Vetry until it is cut through by the little valley of the Coity Brook. As soon as the influence of this valley disappears, viz., Nolton Street, it commences again, and forms another great flat extending in a southerly direction far beyond the limits of the Urban District. Over the whole of the area covered by this deposit the soil is a light gravelly one very different from the stiff clay of the Lias. There has been some dispute as to whether this deposit is a river gravel or not, but the better opinion is that it was formed by an effluent from the Ice Sheet at the close of the last Glacial Period.

THE POPULATION.


The population of the district, including the staff and inmates of the Workhouse, was ascertained by the result of the census, April, 1911, to be 8,021 persons; giving an average of 4.65 persons per house in the district. An average of 4.69 persons per house in the North Ward; in the South Ward of 4.58; and in the West Ward of 4.68. I have estimated the population for the year 1915 by multiplying the number of occupied houses in the North Ward by 4.69; the number in the South Ward by 4.58; and the number in the West Ward by 4.68, and by adding the daily average number of inmates and officers at the Workhouse (225) and Cottage Homes (158) during the year to the estimated population of the town—8,153. This gives a population for the town of 8,153; an increase for the year of 153; Workhouse, 225; Cottage Homes, 158; Total gross population, 8,536.

BRIDGEND URBAN DISTRICT COUNCIL.

GROWTH OF POPULATION.



* 1905. Extension of District.



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The nett population is obtained as follows :—

Town population	8,153
Workhouse, Officers and Residents	42
Cottage Homes, Officers and Residents	...	...	...	25
Residents at the Asylum	..	...	...	21
				<hr/>
				8,241

But this makes no allowance for the number of men who have joined the army during 1915; therefore I shall adopt The Registrar General's suggestion of using the estimated population of 1914—8,000—for the calculation of the birth rates and the estimate of the civil population based on the National Register—7,778—for the death rates.

This population, corrected by the number of persons at the Cottage Homes and the Workhouse, belonging to the district, comprises a nett population, and has been used for the death rates of diseases (p. 8), and the following Tables—7,866.

ESTIMATE OF CIVIL POPULATION, 1915.

GENERAL REGISTER OFFICE,
SOMERSET HOUSE, LONDON, W.C.

“ The war has made it impossible to adhere to the methods of estimation of local and national populations hitherto in use. Men of military age have been largely drafted to military training centres or sent abroad with the army, and the remainder of the male adult population, as well as, to a lesser extent, the female population, has migrated on an unprecedented scale into areas other than those in which it was enumerated at the last census.

Under these circumstances estimates of local populations based on the census returns were clearly inadmissible, and it became necessary to search for a substitute. Fortunately this was ready to hand in the shape of the National Register, which referred to a date only six weeks removed from that for which estimates were required, viz, the middle of the year 1915. No doubt this does not form a perfect record, as it is known that a number of persons escaped registration. From investigations, however, which have been made in another connexion, it appears that the defects in the register, taken as a whole, are not on such a scale as to affect seriously the estimates of population based upon it. By the methods described below it was possible to derive from these returns estimates of the *civil* population only of each administrative area on August 15th. No attempt has been made to increase these by allowance for members of the fighting forces, because, apart altogether from the difficulty of ascertaining the average military population of each district during the year, *experience has shown that under present circumstances only civilian deaths can be tabulated for local areas.* If military deaths were to be included they would either have to be debited to the area in which they occurred, a course which would render the death-rates of districts containing large military hospitals meaningless, or to the area of residence. An attempt made to pursue the latter course has had to be abandoned owing to military authorities having been unable to furnish to the registrars the necessary information. *It has been found necessary, therefore, to limit the tabulation of deaths by local areas to deaths of civilians,* and under these circumstances the civilian population is obviously the proper one to use for the calculation of death-rates.

An additional advantage in the use of National Register populations is that these consist of habitual residents in each locality, and not merely of the persons who happened to be present therein on a certain date. The deaths tabulated from the year 1911 onwards are also those of habitual residents only, and therefore the use hitherto of populations which in certain cases included very large institutional elements chiefly composed of non-residents introduced in these cases serious errors into the rates calculated from them, as pointed out in the Registrar General's Annual Reports. (See page 132, Report for 1913). This source of error now, of course, disappears for the time being, and in such districts an unavoidable break in the continuity of the previously misleading rates will result. In any case, however, the maintenance of continuity is, under present circumstances, obviously impossible, and it is felt that the present estimates will furnish death-rates calculated to indicate, as nearly as may be, the health conditions of the civil population. The method by which the estimates of civil population have been derived from the National Register Returns may now be described.

The ratio of the total population, less the males aged 15-65 years to the number of females aged 15 to 65 years at the date of the census, was calculated for each administrative area, and this ratio was applied to the number of females on the National Register; the resulting product, plus the number of males aged 15 to 65 years on the National Register, was taken to be the number of the Civil population of the district. A small adjustment was necessary in order to make the sum of the estimates for the several districts equal to the estimate for the country as a whole, made on the same basis. Further, the population in institutions was not registered, and this (taken to be the same in the aggregate for England and Wales as at census date) together with a number of persons of no fixed abode were distributed evenly over the whole country. These two adjustments raised the original estimates by about one per cent.

The question of the population to be used for the calculation of birth rates has also required consideration. The births registered are not only those of the children of civilians, and the estimates of civil population therefore form an unsuitable basis for the calculation of birth-rates. It is impossible to frame any estimate that would give reliable birth-rates, and it is suggested, therefore, that the birth-rates for 1915 be based upon the existing estimates of total population for 1914. These will sometimes be seriously in error owing to extensive migration having occurred. Although in such cases the Registrar General does not possess the local information necessary for applying any correction, it is not suggested that this fact need preclude medical officers of health from making use of their opportunities in this direction.

Difficulties, which will probably prove insoluble, remain as to estimation of populations in sex and age groups, and the standardizing factors dependent upon them. Moreover, the present method of estimation will obviously not apply to 1916, or subsequent years, unless the National Register is effectively kept up to date, or further enumeration made. Nothing can at present be decided as to these matters."

The variable increase during the last 31 years renders, however, an annual estimate extremely fallacious.

I fail to understand why the Government, knowing the benefits afforded by a decennial census, inaugurated a hundred years ago, does not supplement these benefits by the introduction of a quinquennial one, or at any rate of a simple enumeration of the people, every alternate tenth year, for the purpose of accurately ascertaining the correct population. This would lead to more accurate birth and death rates than the present system of transferred deaths by the Registrar General.

Houses occupied, &c., in the Parishes—June, 1915.

Ward.	Occupied.	Vacant.	Totals.	Civil 1914 Popu- lation.	National Register Population.
(Workhouse ...	2	...	2)	225)	...
North Ward ...	791	65	856	3611	3539
(Cottage Homes..	11	...	11)	158)	...
South Ward ...	583	13	596	2624	2547
West Ward ...	379	7	386	1765	1692
Asylum Residents	...	...	...	...	...
District ...	1753	85	1838	8000	7778

Houses erected, in course of erection, and closed :—

Wards.	Houses Erected.	In Course of Erection.	Closed Unfit.
North ...	23	10	—
South ...	12	10	—
West ...	2	1	—
District ...	37	21	—

The above is the 1914 civil population—8,000— excluding from the estimated population of the town the number of inmates of the Cottage Homes and of the Workhouse. The National Register population is 7,778.

BIRTHS.

The nett Births registered during the year were 172 (37 below the last five years' average); of these 90 were males, and 82 were females, excluding the births (6) not belonging to the district at the Workhouse; no birth was transferred to this district by the Registrar General this year.

Calculated with the civil population of 1914 :—

The rate for the first quarter of year ending 31st March was 27.00.

The rate for the second quarter ending 30th June was 19.00.

The rate for the third quarter ending 30th September was 24.50.

The rate for the fourth quarter ending 31st December was 15.50.

The corrected birth rate for the year was with 1914 population 21.50 per 1,000; 4.8 below the average rate for the preceding five years, and 3.80 below, even if all the Workhouse births are included. The gross rate was 22.25—all births divided by the civil population, 8,000.

The rate for the North Ward, including the Workhouse births and population, was 20.85; excluding the Workhouse births with 1914 population, 20.49; for the South Ward, 22.86; and for the West Ward, 21.53.

The rate for England and Wales was 21.8 per 1,000.

This is 2 below the rate of 1914 for England and Wales, which was lower than the rate of any other year on record.

The rate for England and Wales of the 148 Smaller Towns was 21.6. The rate for Bridgend was 21.5.

Compared with the average in the ten years 1905 to 1914, the corrected birth-rate for Bridgend in 1915 shows a decrease of 5.37 per 1,000.

The births at the Workhouse were 6; of these 5 were males and 1 was female. Of these no birth belonged to Bridgend.

The birth-rate at this Institution was 26.66 per 1,000, as compared with 47.62 in 1914; 57.25 in 1913; 58.30 in 1912; 74.38 in 1911; 84.74 in 1910; 52.40 in 1909; 64.17 in 1908; 45.23 in 1907; 39.11 in 1906; 69.96 in 1905. Average of last ten years, 59.31. This year the rate is 32.65 below this average.

The Workhouse population being preponderantly male and the younger women, mostly, being admitted for the purpose of child-birth, the rate is of no significance, except perhaps for its bearing on the subject of illegitimacy, and feeble-mindedness. Of the 6 births at the Workhouse, none belonged to Bridgend. Five were illegitimate.

Children were born at the Workhouse of feeble minded mothers :—

In 1911	...	...	47 per cent.
In 1912	...	...	47 per cent.
In 1913	...	...	45 per cent.
In 1914	...	...	46 per cent.
In 1915	...	...	33 per cent.

Table I. shows the total gross population, the births, the deaths and the excess of births over deaths in successive years, within the District, including those at the Workhouse, and including the deaths of persons belonging to this district dying at the Asylum or elsewhere.

TABLE I.

Year 1881.	Gross Population. 4153	Births.	Deaths.	Excess of Births.	Excess of Births.
1886	4414	147	87	60	Nil.
1887	4467	148	124	24	"
1888	4520	153	115	38	"
1889	4573	139	85	54	"
1890	4626	140	109	31	"
1891	4679	145	129	16	"
1892	4817	154	92	62	"
1893	4956	165	68	97	"
1894	5095	181	87	94	"
1895	5233	214	132	82	"
1896	5379	186	108	78	"
1897	5511	199	107	92	"
1898	5649	211	113	98	"
1899	5788	195	111	84	"
1900	5927	175	128	47	"
1901	6066	174	140	34	"
1902	6536	215	135	80	"
1903	6604	196	124	72	"
1904	6687	209	121	88	"
1905	7085	209	132	77	"
1906	7244	196	133	63	"
1907	7256	196	127	69	"
1908	7470	214	124	90	"
1909	7700	203	134	69	"
1910	7985	248	121	127	"
1911	8084	211	138	73	"
1912	8238	236	109	127	"
1913	8307	221	119	102	"
1914	8409	202	138	64	"
1915	8383	178	126	52	"

The gross population of Tables I. and II. is composed of the civil population of 1914—8,000—with the inmates of the Workhouse and Cottage Homes in 1915 added.

Table II. shows the comparisons of births and deaths in the district in following years, with annual rates per 1,000 with gross population as divisor, including births and deaths at the Workhouse and at the Asylum, or elsewhere, belonging to the district.

TABLE II.

Years.	Births.	Birth-rate per 1000 living.	Deaths from all causes.	Death-rate per 1000 living.	Zymotic Death-rate.	Death-rate under 1 year per 1000 births.		
						Bridgend D'ths. Rate.	England & Wales.	
1886	147	33.3	87	19.7	1.5	18	122.4	149
1887	148	33.1	124	27.7	4.2	26	175.6	145
1888	153	33.8	115	23.2	3.1	22	143.8	136
1889	139	30.4	85	18.5	1.9	16	115.1	144
1890	140	30.2	109	21.4	2.8	24	171.4	151
1891	145	31.0	129	27.5	0.8	20	138.0	149
1892	154	32.0	92	19.0	1.0	17	110.4	148
1893	165	33.2	68	13.7	1.6	23	139.3	159
1894	181	35.5	87	17.0	0.9	18	99.4	137
1895	214	40.8	132	25.2	4.2	37	172.8	161
1896	186	34.5	108	20.0	1.3	31	166.6	148
1897	199	36.1	107	19.2	1.0	27	135.6	156
1898	211	37.3	113	20.0	1.7	26	123.2	160
1899	195	33.6	111	19.1	2.4	28	143.5	163
1900	175	29.5	128	21.5	3.2	34	194.2	154
1901	174	28.6	140	23.0	2.4	20	114.9	151
1902	215	32.8	135	20.5	2.0	32	148.8	133
1903	196	29.6	124	18.7	1.0	26	132.6	132
1904	209	31.2	121	18.0	2.4	37	177.0	146
1905	209	29.5	132	18.6	3.1	24	114.8	128
1906	196	27.0	133	18.3	0.9	20	102.0	133
1907	196	27.0	127	17.5	1.3	23	117.3	118
1908	214	28.6	124	16.6	1.2	22	102.8	121
1909	203	26.3	134	17.4	0.6	18	88.6	109
1910	248	31.5	121	15.1	0.1	17	68.5	106
1911	211	26.0	138	17.0	1.4	18	85.3	130
1912	236	28.6	109	13.2	0.6	15	63.5	95
1913	221	26.6	119	14.3	0.1	24	108.5	109
1914	201	24.0	138	16.4	0.3	9	44.5	105
1915	178	21.23	126	15.03	0.16	11	61.80	110

The death-rate of infants under one year of age, divided by the gross births, fairly well maintains the decline noticeable in 1910; this is the lowest rate recorded in the above series of 29 years, except 1914.

The gross general death-rate (15.03) is the lowest recorded, with the exception of 1912 and 1893, in the preceding 29 years, and is 2.96 below the gross average annual rate of the last ten years, in Table II.

BRIDGEND URBAN DISTRICT, 1915.

DIAGRAM OF DEATHS, EXCLUDING DEATHS AT THE WORKHOUSE NOT BELONGING TO THE DISTRICT.

Month	JANUARY					FEBRUARY				MARCH					APRIL					MAY				JUNE				JULY				AUGUST				SEPT.				OCTOBER				NOVEMBER				DECEMBER				
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
25																																																				
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=95

Table III. shows the comparisons of nett births and deaths in the North, South and West Wards, with 1914 population for the births and National Register population for the deaths.

TABLE III.

Year 1915.	Births.	Birth-rate per 1000 living.	Deaths from all causes.	Death-rate per 1000 living.	Zymotic Deaths, and Death-rate per 1000 living.		Death-rate under 1 year per 1000 births.	
							Bridgend.	England and Wales.
Workhouse..	(6	26.66	39	173.33)	...	...		110
North Ward	74	20.49	35	9.89	2	0.56	27.03	
South Ward	60	22.86	36	14.13	5	1.95	66.66	
West Ward	38	21.53	24	14.18	2	1.18	78.95	148
In Transfer..								smaller Towns:
District ...	172	21.50	95	12.21				
Standardized				12.48	9	1.16	52.32	114

We had in the year 1914 the lowest nett birth-rate, 23.61, up to that year recorded; last year, 1915, the rate was 21.50, being 2.11 below that of 1914.

Deaths.

During the year 1915, 126 deaths, including all deaths at the Workhouse, 3 at the Asylum and 6 elsewhere, were registered; of the 95 out of the above deaths "belonging to the district," 49 were males, and 46 were females.

The excess of births over deaths in this district and belonging to it elsewhere was 52.

The crude death-rate was 15.03 per 1000 of the population; this includes the deaths at the Workhouse, and the deaths elsewhere "belonging to the district," and was 1.41 below the average of the last ten years, Table II.

The rate of those dying within the district was 13.96.

The nett death-rate corrected by eliminating the deaths at the Workhouse and elsewhere of non-residents, and adding the deaths elsewhere of residents, and dividing by the civil population, was—

For the quarter ending 31st March	...	...	19.54
For the quarter ending June 30th	...	...	20.28
For the quarter ending September 30th	...	...	7.20
For the quarter ending December 31st	...	...	11.83
For the year 1915	...	...	12.21

Eliminating 12 deaths at the Workhouse, as not occurring among persons affected by the National Register, the death-rate would be 10.07.

The rate for England and Wales was 13.3 in 1912; this, the lowest rate recorded, was 1.3 per 1,000 below the rate in 1911. Compared with the average rate for Bridgend for the ten years 1905 to 1914, the death-rate in 1915 shows a decrease of 1.41 per 1000, with the gross population; and 0.51 with the nett population.

The rate for England and Wales was 14.8 in 1915.

The rate for England and Wales for the 148 Smaller Towns was 14.2.

The nett death-rate for the North Ward (with the nett population), without the deaths at the Workhouse of non-residents, and with the deaths of residents elsewhere added, was 9.89; the nett rate for the South Ward 14.13; and the rate for the West Ward was 14.18.

Nine deaths from the seven chief zymotic diseases during the year occurred; the nett zymotic death-rate per 1,000 persons living was 1.16, as compared with 0.37 in 1914, 0.13 in 1913; 0.63 in 1912; 1.48 in 1911; 0.13 in 1910; 0.65 in 1909; 1.20 in 1908; 1.38 in 1907; 0.97 in 1906.

The zymotic rate for the several quarters of the year was—

First Quarter	...	...	...	...	...	2.06
Second Quarter	...	...	...	...	...	1.54
Third Quarter	...	...	...	...	...	0.26
Fourth Quarter	...	...	...	...	...	0

The rate for 1915 was 0.16 above the average annual rate for the ten years 1905 to 1914, or 1.00 per annum. The rate for the ten years 1895 to 1904 was 2.26.

See Table VIIla to find rates for successive years.

The zymotic rate for the North Ward was 0.56; the South, 1.95; the West, 1.18.

Inquests were held in regard to 7 cases of sudden death; of these

5 were attributed to Accident.

1 was attributed to Convulsions.

1 „ „ Heart Disease.

Three inquests were held in the North Ward; three in the South, and one in the West Ward. The rate was 0.90 per 1,000, as compared with 1.36 in 1914; 1.15 in 1913; 0.63 in 1912; 0.62 in 1911; 1.04 in 1910.

There was one death from puerperal fever. Rate per 1,000, 0.13.

There was no death from parturition; death-rate 0.00 per 1,000; 0.00 in 1914; 0.13 in 1913; 0 in 1912; 0.12 in 1911; 0.13 in 1910.

The deaths of infants under one year of age were 9. The nett rate for the district per 1,000 births was 52.32. This rate is 39.15 below the average annual rate per 1,000 births of the preceding ten years, and the lowest, except 1914, yet recorded.

The infant deaths in the North Ward were 2; the death-rate per 1,000 births was 27.03, not including the 6 births at the Workhouse not belonging to the district in the Ward.

In the South Ward there were 4 infant deaths; the rate per 1,000 births was 66.66.

In the West Ward there were 3 deaths; the infant rate was 78.95

The rate for the district was in the March quarter ... 111.11

„ „ „ June quarter ... 52.63

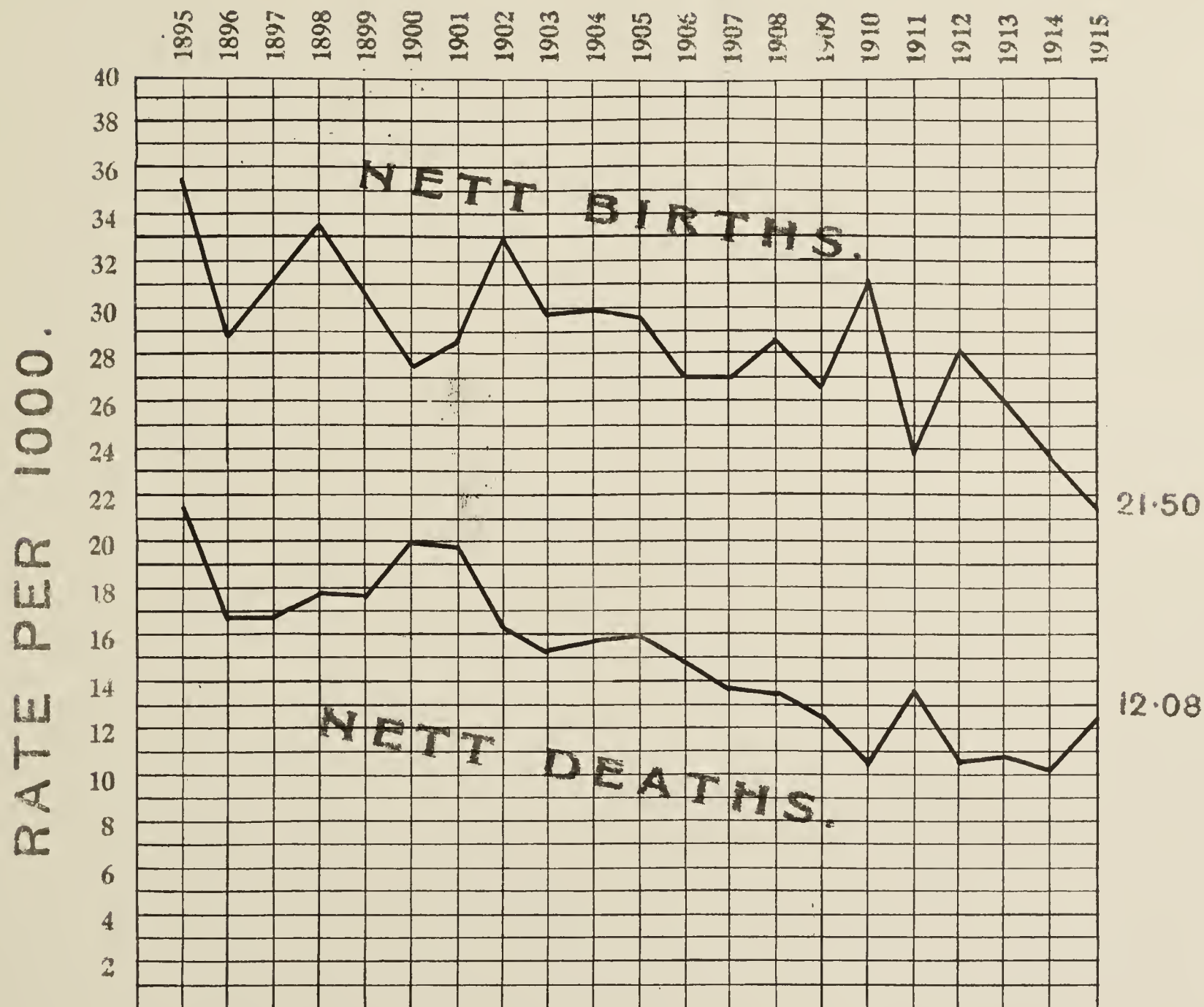
„ „ „ September quarter ... 20.41

„ „ „ December quarter ... 0.00

The rate for the year 1915 was ... 52.32

The rate for England and Wales was 110; the rate for the 148 Smaller Towns was 114.

BRIDGEND URBAN DISTRICT.



Average Birth-rate, 1895 to 1915.....28.77

Do. Death-rate, do.15.09

Infantile Mortality.

The latest figures for 1915 show that the death-rate under 1 year of age for England & Wales amounted to 110 per 1,000 births, as compared with 115 per 1,000 births in the previous ten years and 105 in the year 1914 and 108 in the year 1913. In spite of the general restriction of local expenditure, active steps are being taken by practically all the larger local sanitary authorities to lessen infant mortality and to promote the welfare of infants generally. A large number of local authorities have appointed health visitors, who advise mothers as to the care of their infants; in most of the large towns maternity and child welfare centres have been established, at which expectant and nursing mothers receive medical advice and minor treatment, and in many places arrangements have been made for the provision of midwives and of doctors for the confinement of necessitous women and for other assistance for expectant and nursing mothers and children.

At the Workhouse 39 deaths were registered during the year; of these 30 were males, and 9 females. The excess of deaths over births was 33.

Twelve previous residents, "belonging to Bridgend," died at the Workhouse:—Four of the North Ward, three of the South Ward, and five of the West Ward.

The daily average number of inmates was 225 in 1915; 231 in 1914; 227 in 1913; 242 in 1912; 242 in 1911; 236 in 1910.

The death-rate was 173.33 per 1000 in 1915, as compared with 238.09 in 1914; 132.16 in 1913; 132.23 in 1912; 86.77 in 1911; 182.20 in 1910.

A new tramp ward was built in 1905, to serve the future needs of the Union, with 12 separate cells; the nightly average number of vagrants was 6 in 1915; 12 in 1914; 18 in 1913; 22 in 1912; 19 in 1911; 23 in 1910; 23 in 1909; 20 in 1908; 23 in 1907; 18 in 1906.

The number of vagrants accommodated at the Workhouse during the year 1915 was 2,190; in 1914, 4,244; in 1913, 6,580; in 1912, 8,125; in 1911, 7,018; in 1910, 8,536; in 1909, 8,395.

In addition there were during 1914, 1,796 vagrants (daily average 7.0) given tickets for the Common Lodging-houses by the Police at the cost of the Guardians; in 1913, 1,199 (daily average 3.3); in 1912, 4,940 (daily average 13; in 1911, 6,000 (daily average 16); in 1910, 7,929 (a daily average of 21). This has been discontinued during 1915.

The number of vagrants passing through the town in the course of the year 1914 was 6,040; in 1913, 7,779; in 1912, 13,065; in 1911, 13,018; in 1910, 16,465; in 1909, 15,995.

It is curious to notice that a decrease has occurred of 58.82 in the average annual death-rate of the last 5 years, as compared with the preceding 5 years, in the face of the increase in the numbers and severity of the cases received into the Infirmary.

The 39 deaths at the Workhouse among an average daily number of inmates of 225 are included in the total deaths in the district, on which the crude general death-rate is based, Table II.

The nett rate of the district should be based on the deaths of residents in the Urban District, with the deaths of "residents" of Bridgend at the Asylum, Workhouse, and elsewhere added, and the deaths of non-residents at the Workhouse subtracted, divided by the estimated nett population of the town with the number of officers and of inmates "belonging to the district" at the Workhouse and the Cottage Homes added, 7,866; gross population, 8,383.

In 1915 it is based on the Registrar General's estimate based on the National Register.

The deaths of non-residents will be found subtracted in Column 12, and the nett rates in Columns 5 and 13 of the Local Government Board Table I.

THE BRIDGEND URBAN DISTRICT.

Area in Acres, 1213.706.

Density, 7.02.

1891.

1911.

1915.

Population, 4,679; Census, 8,021. 7,866 (estimated nett population).
1914 population for birth-rate, 8,088.

Birth-rate, 21.27 with above nett population. Total Death-rate, 15.03.
Nett rate, 12.08. Standardized rate, 12.48.

Infant death-rate, 52.32 per 1,000 births, excluding Workhouse births and deaths not belonging to the district.

Zymotic rate, 1.14; Measles, 0.26; Whooping Cough, 0.51; Enteric Fever, 0.13; Diphtheria, 0.13; Erysipelas, 0.0; Epidemic Influenza, 0.13; Diarrhœa, 0.13; Renal, 0.26; Puerperal Fever, 0.13; Parturition, 0.00; Phthisis, 0.64; Tuberculous Meningitis, 0.13; Other Tubercular, 0.13; Cancer, 0.51; Bronchitis, 1.40; Pneumonia, 1.78; Other Diseases of Respiratory Organs, 0.00; Alcoholism, 0.0; Cirrhosis of Liver, 0.26; Prematurity, etc., 0.13; Heart Diseases, 2.41; Accidents, 0.64; Suicide, 0.00; Rheumatic Fever, 0.00; Other Defined Causes, 2.03; Ill-Defined, 0.38; All Causes, 12.08. This rate takes the "residents" of Bridgend at the Workhouse, Cottage Homes, and Asylum in the population, and excludes deaths of non-residents.

The deaths of all ages were:—

Under one year	...	...	...	...	9
One and under two years	..	...	...	...	6
Two and under five years	...	...	...	...	4
Five and under fifteen years	...	...	...	...	2
Fifteen and under twenty-five	...	...	...	...	3
Twenty-five and under forty-five	...	...	...	...	13
Forty-five and under sixty-five	...	...	...	...	22
Sixty-five and under eighty-five	...	...	...	...	31
Eighty-five and upwards	...	...	...	...	5
					—
					95

Table IV. shows the principal causes of deaths amongst infants under one year of age.

TABLE IV.

Causes of Deaths under One Year of age.						Deaths.
Measles	...	...	...	...	...	0
Whooping Cough	...	...	...	...	...	2
Tuberculosis	...	...	...	...	...	0
Zymotic Diarrhœa	...	...	...	...	...	0
Congenital Defects	...	...	...	...	...	2
Premature Birth	...	...	...	...	...	1
Diseases of the Respiratory System	...	...	...	...	...	1
Diseases of Nervous System	...	...	...	...	...	2
Diseases of Digestive System	...	...	...	...	...	0
Other defined causes, etc.	...	...	...	...	...	0
Violence	...	...	...	...	...	0
Ill-defined causes, etc.	...	...	...	...	...	1
Total						9
Rate per 1000 persons living						1.14

Table V. shows the number of deaths registered in each Ward during the year.

TABLE V.

Workhouse and Wards.	Zymotic Diseases.	Parasitic Diseases.	Digestive Diseases.	Constitutional Diseases.	Developmental Diseases.	Local Diseases.	Violence.	Ill-defined Causes, etc.	Totals.	Death-rate per 1000.	Nett 1914 Population for Births and daily average at Workhouse.	Nett Population for Deaths.
Workhouse	(1	...	1	5	2	27	1	2	39	173.33	225)	
North ...	2	...	2	5	2	22	2	0	35	9.89	3653	3581
South ...	5	...	1	4	0	21	2	1	36	14.13	2649	2572
West ...	2	...	1	4	2	13	1	1	24	14.18	1786	1713
Nett ...	...	..	...	...	...	...	...	...	...	12.08	8088	7866
District ...	9	...	4	13	4	56	5	2	95	...	...	...
Stand'rdiz'd	.	...	...	...	...	...	...	...	...	...	...	...

* In 1907 Pernicious Anæmia classified as Digestive.

The above rate, 12.08, is the death-rate for the district, 12.48, standardized with the factor supplied by the Registrar-General, and the nett deaths with the nett population, 7,866. The crude rate is 15.03, and includes deaths at the County Asylum, all deaths at the Workhouse, and elsewhere belonging to the district, taken with the gross population, 8,383.

The rate for all deaths that actually occurred within the district was 13.96. And the rate corrected by subtracting deaths not belonging to the district, and adding deaths belonging to the district taking place at the Asylum and elsewhere was 12.08, on an estimated nett population of 7,866. This rate standardized was 12.48.

The crude rate for the North Ward, including all deaths at the Workhouse, and deaths belonging to the Ward elsewhere was 15.76. The "nett" rate was 9.89. There were 4 deaths at the Workhouse belonging to the North Ward. There were 3 deaths at the Workhouse belonging to the South Ward; nett rate 14.13.

There were 5 deaths at the Workhouse belonging to the West Ward. The nett rate for the West Ward was 14.18. Several of these deaths were of vagrants and not transferable.

ZYMOTIC DISEASES.

The 95 deaths from all causes included :—

1 attributed to Diarrhœa.

1 to Enteric Fever. (The case of Enteric Fever occurred outside the district, but was transferred, as deceased had previously lived in the town).

1 attributed to Diphtheria.

2 to Measles.

4 to Whooping Cough.

9 deaths attributed to the seven principal zymotic diseases.

There was one death attributed to Epidemic Influenza.

And one to Puerperal Fever.

NOTIFICATION OF INFECTIOUS DISEASE.

During the year 1915, 98 cases of infectious disease were reported to me under the provisions of the Infectious Disease Notification Act; 58 in 1914; 56 in 1913; 27 in 1912; 46 in 1911.

Table VI. shows the number of cases reported under the Notification Act, and the deaths from the same during each month of the year 1915.

In addition to the deaths shown in Table VI., there was one death from Diarrhœa in June; one from Influenza in March; two from Measles in May, and four from Whooping Cough—(1 in February, 2 in March, 1 in July).

TABLE VI.

Months. 1915.	Diphtheria.		Scarlet Fever.		Enteric Fever		Puerperal Fever		Erysipelas		Totals	
	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases
January —	1	...	...	...	...	...	...	...	...	1	1	1
February —	...	3	...	...	...	3	1	1	...	—	1	7
March —	...	1	...	...	...	...	...	...	...	—	—	1
April —	...	...	...	1	...	...	...	...	...	—	—	1
May —	...	...	...	4	...	...	...	...	...	—	—	4
June —	...	1	...	2	...	...	...	...	...	—	—	3
July —	...	...	...	11	...	...	...	...	...	1	—	12
August —	...	3	...	2	1	1	...	1	...	—	1	7
September —	...	...	...	14	...	...	...	...	...	—	—	14
October —	...	...	...	23	—	...	...	...	...	2	—	25
November —	...	...	...	13	...	...	...	...	...	1	—	14
December —	...	2	...	7	...	...	...	...	...	—	—	9
Year 1915	1	10	...	77	1	4	1	2	...	5	3	98
Rate per 1000 persons.	0.13	1.27	...	9.79	0.13	0.51	0.13	0.26	—	0.64	0.38	12.46

Table VII. shows the distribution of notified infectious diseases, and deaths due to the same, in each Ward.

TABLE VII.

Wards.	Diphtheria		Scarlet Fever		Enteric Fever		Puerperal Fever		Erysipelas		Total	
	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases
North —	—	1	—	49	1	3	—	—	—	3	1	56
South —	—	6	—	13	—	1	1	2	—	1	1	23
West —	1	3	—	15	—	—	—	—	—	1	1	19
District —	1	10	—	77	1	4	1	2	—	5	3	98

In addition to the above there were :—

In the North Ward—1 death from Measles; and 1 from Influenza.

In the South Ward—4 deaths from Whooping Cough; 1 Measles; 1 Influenza.

In the West Ward—1 from Diarrhœa.

Table VIII. shows the deaths that occurred during the years 1886 to 1892; and the notifications received, with the deaths that occurred during the years 1893 to 1915 inclusive, from infectious diseases (including the cases and deaths at the Workhouse, belonging to the district) The Notification Act was adopted by the Authority in July. 1893.

TABLE VIII.

Year	Gross Population	Smallpox		Scarlet Fever		Diphtheria		Membranous Group		Enteric Fever		Measles		Whooping Cough		Diarrhoea		Deaths from 7 principal Zymotic Diseases Annually	Pu-erpal Fever		Erysipelas	
		D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.		D'ths.	Cases.	D'ths.	Cases.
1881	4153																					
1886	4414		1	5		1		5		1				2		1		7				
1887	4467									1				1		1		19				
1888	4520							4				6				3		14				
1889	4573					1				1				1		2		8		1		
1890	4626			4		2				4		1		2		1		12				
1891	4679			1										3				4				
1892	4817			2		1										1		6				
* 1893	4956	1	2		4	1	2	1		2						2		10				
1894	5095				7	1	7	1	1	6						1		5				2
1895	5233				10	1	6			3		7		7		2		22				7
1896	5379	1	21		32		32			12				2				7				5
1897	5511		4		20		20			23				1		3		6				7
1898	5649				13		13			19				5				10				3
1899	5788				15		15			49						2		14				5
† 1900	5927		1		7		7			78		9		1		3		19		1		1
1901	6066				27		27			27				4		4		15		5		12
1902	6536	1	2	1	14		14			32		10				3		20				5
* 1903	6604				17		17			22				1		1		14				3
1904	6687		1		18		18			18						11		16				5
‡ 1905	7085				8		8			19		2		2		1		7				1
1906	7244				12		12			117				3		6		22				8
1907	7256				44		44			4		6		1		3		7				2
1908	7470				4		4							6		1		10				3
1909	7700				30		30			3						3		9		1		3
1910	7985				28		28			2						1		5				2
|| 1911	8084				36		36			1		5		3		7		12				4
1912	8238				20		20									1		5				1
1913	8307				43		43			3						1		1				2
1914	8409				42		42									1		3				2
1915	8383				77		77			4		2		4		1		9		1		5

Notification Act 1889, adopted July, 1893. † In 1900 Diphtheria and Membranous Group were conjoined, as to Notifications and Deaths. x Sewerage Scheme, and work of connecting the Houses, completed. k Filter Beds on Water Supply completed and utilized. 1905, Increase of district by 513 acres with an estimated population of 275. || 1911 Enteritis, etc., was included under the heading of Diarrhoea.

Table VIIIA. shows the comparison of prevalence per 1,000 of population of deaths from infectious diseases from 1886 to 1892 inclusive; and the prevalence per 1,000 of cases notified, with the prevalence of deaths that occurred during the years 1893 to 1915, inclusive; with the cases and deaths at the Workhouse belonging to the district.

TABLE VIIIA.

Year	Popu- lation.	Smallpox		Scarlet Fever		Diphtheria		Membranous Group		Enteric Fever		Continued Fever		Measles		Whooping Cough		Diarrhoea		Death-rate of seven principal Zymotic Diseases Per 1000	Puerperal Fever		Erysipelas	
		D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.	Cases.	D'ths.
1881	4153																							
1886	4414	..	0.20	1.11	..	0.22	..	1.11	..	0.45	..	0.22	..	..	..	0.45	..	0.22	..	1.5	..	..	..	..
1887	4467	..	..	..	..	..	..	0.88	..	1.34	..	0.22	..	..	..	0.22	..	0.22	..	4.2	..	..	..	..
1888	4520	..	..	..	..	..	..	..	..	0.22	..	..	1.32	..	..	..	..	0.66	..	3.1	0.22	..	..	..
1889	4573	..	..	..	..	0.21	..	..	..	0.87	..	..	..	..	..	0.21	..	0.43	..	1.7	..	0.21	0.21	..
1890	4626	..	0.86	..	..	0.43	..	..	..	0.21	..	0.21	..	..	..	0.43	..	0.21	..	2.6	0.21	..	..	..
1891	4679	..	0.21	..	..	..	..	..	..	..	..	..	..	..	..	0.64	..	..	..	0.8	0.21	..	..	..
1892	4817	..	0.41	..	..	0.20	..	..	..	0.41	..	..	..	..	..	..	..	0.20	..	1.0	0.20	..	..	..
1893	4956	0.20	0.40	..	0.80	..	0.40	0.20	0.20	1.21	5.64	..	2.01	..	..	..	..	0.40	..	1.6	..	..	..	..
1894	5095	..	..	..	1.37	0.19	1.37	..	..	0.58	2.74	..	1.57	..	..	..	..	0.19	..	0.9	..	0.19	..	0.39
1895	5233	..	..	..	1.91	0.19	1.14	0.19	..	0.76	2.29	..	0.57	1.33	..	1.33	..	0.38	..	4.2	..	0.76	..	1.53
1896	5379	0.18	3.90	..	5.94	..	..	..	..	0.37	4.27	..	..	..	..	0.37	..	0.37	..	1.3	..	..	..	0.92
1897	5511	..	0.72	..	3.62	..	0.90	..	..	0.36	3.44	..	..	..	..	0.18	..	0.54	..	1.0	..	0.36	..	1.26
1898	5649	..	..	..	2.30	..	..	..	..	0.88	8.56	..	..	..	..	0.88	..	..	..	1.7	..	0.53	..	0.53
1899	5788	..	..	..	2.59	0.17	1.0	..	..	1.90	13.47	..	..	..	..	..	..	0.34	..	2.4	..	0.34	..	0.86
1900	5927	..	0.16	..	1.18	0.50	1.80	..	..	0.50	4.38	..	..	1.51	..	0.16	..	0.50	..	3.2	..	0.16	0.16	0.16
1901	6066	..	..	..	4.45	0.82	4.78	..	..	0.32	5.25	..	..	..	..	0.65	..	0.65	..	2.4	0.16	0.16	0.82	1.97
1902	6536	0.15	0.30	0.15	2.14	0.30	1.53	..	..	0.49	3.36	..	..	1.53	..	..	..	..	..	3.0	..	..	..	0.76
§1903	6604	..	..	..	2.57	0.30	2.42	..	..	0.45	2.72	..	..	..	..	0.15	..	0.15	..	1.0	..	0.15	0.45	..
1904	6687	..	0.15	..	2.69	..	0.89	..	..	0.45	2.84	..	..	..	..	0.29	..	1.64	..	2.4	..	..	..	0.60
†1905	7085	..	..	..	1.13	..	0.42	..	..	2.26	16.51	..	..	0.28	..	0.42	..	0.14	..	3.1	0.14	0.14	1.13	..
1906	7244	..	..	..	1.66	0.14	1.52	..	..	..	0.55	..	..	..	..	..	..	0.83	..	0.9	0.14	0.28	..	0.28
1907	7256	..	..	..	6.06	..	0.69	..	..	..	..	..	..	0.83	..	0.42	..	0.41	..	1.3	..	0.28	..	0.41
1908	7470	..	..	..	0.54	0.27	0.67	..	..	..	0.40	..	..	..	..	0.80	..	0.13	..	1.2	..	..	..	0.40
1909	7700	..	..	..	3.89	0.26	1.04	..	..	..	0.52	..	..	..	..	..	..	0.39	..	0.6	..	0.13	..	0.39
1910	7985	..	..	..	3.51	..	1.13	..	..	..	0.25	..	..	..	..	..	..	0.13	..	0.1	..	..	..	0.25
*1911	7760	..	..	..	4.64	..	0.64	..	..	..	0.13	..	..	0.64	..	..	..	0.90	..	1.5	..	0.13	0.51	..
1912	7946	..	..	..	2.52	0.13	0.75	..	..	..	..	..	..	..	..	0.38	..	0.13	..	0.63	..	..	..	0.13
1913	7990	..	..	..	5.38	..	1.00	..	..	..	0.38	..	..	..	..	..	..	0.13	..	0.13	..	..	..	0.25
1914	8090	..	..	..	5.19	0.12	1.73	..	..	0.12	..	..	..	..	..	..	..	0.12	..	0.37	..	..	..	0.24
1915	7866	..	..	..	9.79	0.13	1.27	..	..	0.13	0.51	..	..	0.26	..	0.51	..	0.13	..	1.14	0.13	0.26	..	0.64

§ Sewage Completed.

† Filter Beds Completed.

* 1911 and following years Rates are calculated on Nett Population.

Table IX. shows the deaths from certain other diseases and injuries from 1886-1915. The Tables VIII. and VIIIA., XI. and IXA., contain a complete record of the notifications received and deaths, with their prevalence per 1,000 of the respective diseases dealt with, during the years I have held the position of Medical Officer of Health for this District.

TABLE IX.

Year.	Influenza	Septic Diseases	Rheumatic Fever.	Phthisis	Other Tubercular Diseases	Respiratory Diseases	Other Respiratory Diseases	Cardiac Diseases	Malignant Diseases	Alcoholism & Cirrhosis of Liver	Parturition	Nervous Diseases	Injuries
1886	...	...	...	6	9	18	...	8	5	1	1	15	2
1887	...	1	...	8	5	26	1	7	5	4	2	13	8
1888	...	3	2	3	2	16	4	13	2	3	5	19	4
1889	...	...	...	7	3	18	...	6	1	3	...	13	4
1890	...	...	2	7	5	30	1	5	8	3	2	11	5
1891	5	1	1	11	4	30	1	6	2	3	1	21	12
1892	5	...	...	6	5	12	...	7	5	7	1	13	6
1893	2	...	...	8	5	12	...	8	4	2	...	20	4
1894	...	...	...	11	4	23	1	10	4	2	...	13	4
1895	2	...	..	8	11	19	1	12	6	2	1	28	5
1896	2	1	...	10	6	15	1	8	4	2	1	14	8
1897	1	...	...	8	3	25	2	14	7	1	..	11	4
1898	4	1	3	8	3	26	3	3	6	2	1	15	1
1899	3	1	...	7	4	17	...	8	4	1	3	12	3
1900	2	...	...	9	2	18	1	10	6	1	1	31	2
1901	1	1	...	10	...	31	3	11	5	2	1	17	6
1902	...	3	1	10	4	30	1	9	4	2	2	27	3
1903*	3	...	...	7	6	13	4	12	8	1	...	19	5
1904	3	...	...	8	2	9	4	8	8	2	...	14	6
1905	3	2	...	13	4	11	5	6	5	3	...	14	1
1906	2	2	1	10	4	11	2	10	4	3	...	17	5
1907	1	2	1	6	5	20	2	8	5	5	1	10	5
1908	2	..	1	8	3	19	4	12	4	2	...	11	4
1909	...	...	...	10	3	13	4	17	3	1	2	10	4
1910	2	...	...	7	2	10	2	5	3	2	1	11	4
1911	...	...	...	13	3	13	2	11	6	2	1	20	4
1912	2	...	...	8	1	17	...	11	11	2	...	7	2
1913	1	...	...	2	2	10	1	10	10	...	1	17	7
1914	1	1	1	7	1	8	...	16	8	...	...	7	8
1915	1	1	...	5	2	25	...	19	4	2	...	8	5

* Bronchitis and Pneumonia.

As regards the relative increase or decrease of Phthisis and other Tubercular disease, by contrasting the earlier series of 15 years with the later 15 of the preceding 30 years, taking both the above-named diseases together, there are 178 deaths in the earlier period, and 166 in the later; 12 more deaths in the earlier. Taking the diseases separately, although there are 117 deaths from Phthisis in the earlier series of years to 124 in the later, yet the deaths from other Tubercular disease are 61 in the earlier to 42 in the later.

An increase in Phthisis, but a decrease in the other Tubercular diseases, with a decrease of 12 in all Tuberculous disease.

On the other hand, the average annual death-rate per 1,000 for Phthisis in the earlier series is 1.54, in the later 1.14, giving the advantage of 0.40 to the later years.

In the case of other Tubercular disease the relative figures are—

In the earlier years ... 0.95 In the later years ... 0.38
again, giving the advantage of 0.57 to the later series of years.

On the whole there is slight improvement in the comparative incidence of these special deaths.

In the case of Cancer the deaths in the earlier series of 15 years were 69, in the later 68, a decrease of 1 in the later 15 years.

Contrasting the average annual death-rate per 1,000 of Cancer, the average rate in the earlier 15 years is 0.90, in the later 0.79, a difference in favour of the later period of 0.11.

So that, although the total number of deaths is nearly equal in the later and the earlier period, in an increasing population, yet the average annual rate per 1,000 is 0.11 in favour of the later series of 15 years.

Table IXA gives the comparison of prevalence per 1,000 of the above deaths in Table IX.

TABLE IXA.

Year.	Influenza	Septic Diseases	Rheumatic Fever.	Phthisis	Other Tubercular Diseases	Respiratory *Diseases	Other Respiratory Diseases	Cardiac Diseases	Malignant Diseases	Alcoholism & Cirrhosis of Liver	Parturition	Nervous Diseases	Injuries
1886	...	...	...	1.35	2.04	4.07	...	1.81	1.13	0.22	0.22	3.39	0.45
1887	...	0.22	...	1.79	1.11	5.82	0.22	1.56	1.11	0.89	0.44	2.91	1.79
1888	...	0.66	0.44	0.66	0.44	3.53	0.88	2.87	0.44	0.66	1.10	4.20	0.88
1889	...	...	...	1.53	0.65	3.91	...	1.31	0.21	0.65	...	2.84	0.87
1890	..	...	0.43	1.51	1.08	6.48	0.21	1.08	1.72	0.64	0.43	2.37	1.08
1891	1.06	0.21	0.21	2.35	0.85	6.41	0.21	1.28	0.42	0.64	0.21	4.48	2.56
1892	1.03	...	...	1.24	1.03	2.49	...	1.45	1.03	1.45	0.20	2.74	1.24
1893	0.40	...	...	1.61	1.00	2.42	...	1.61	0.80	0.40	...	4.03	0.80
1894	...	...	...	2.15	0.78	4.51	0.19	1.96	0.78	0.39	...	2.55	0.78
1895	0.38	...	...	1.52	2.10	3.63	0.19	2.29	1.14	0.38	0.19	5.35	0.95
1896	0.37	0.18	...	1.85	1.11	2.78	0.18	1.48	0.74	0.37	0.18	2.60	1.48
1897	0.18	...	...	1.41	0.54	4.53	0.36	2.53	1.26	0.18	...	1.99	0.72
1898	0.70	0.17	0.53	1.41	0.53	4.60	0.53	0.53	1.06	0.35	0.17	2.83	0.17
1899	0.51	0.17	...	1.20	0.69	2.93	...	1.39	0.69	0.17	0.51	2.07	0.51
1900	0.33	...	...	1.51	0.33	3.03	0.16	1.72	1.01	0.16	0.16	5.22	0.33
1901	0.16	0.16	...	1.64	...	5.11	0.49	1.81	0.82	0.32	0.16	2.80	0.98
1902	...	0.45	0.15	1.53	0.61	4.58	0.15	1.57	0.61	0.30	0.30	4.13	0.45
1903	0.45	...	...	1.06	0.90	1.97	0.60	1.81	1.21	0.15	...	2.87	0.75
1904	0.45	...	...	1.20	0.29	1.34	0.60	1.20	1.20	0.29	...	2.09	0.89
1905	0.42	0.28	...	1.83	0.56	1.55	0.71	0.85	0.71	0.42	...	1.97	0.14
1906	0.28	0.28	0.14	1.38	0.55	1.52	0.28	1.38	0.55	0.41	...	2.35	0.69
1907	0.14	0.28	0.14	0.83	0.69	2.76	0.28	1.10	0.69	0.69	0.14	1.38	0.69
1908	0.27	...	0.13	1.07	0.40	2.54	0.54	1.60	0.54	0.27	...	1.47	0.54
1909	...	...	...	1.30	0.39	1.69	0.52	2.21	0.39	0.13	0.26	1.30	0.52
1910	0.25	...	...	0.88	0.25	1.26	0.25	0.63	0.37	0.25	0.13	1.38	0.50
† 1911	...	...	...	1.66	0.38	1.66	0.26	1.41	0.77	0.26	0.13	2.56	0.51
1912	0.25	...	...	1.00	0.13	2.14	...	1.38	1.38	0.25	...	0.88	0.25
1913	0.13	...	...	0.25	0.25	1.25	0.13	1.25	1.25	...	0.13	2.13	0.87
1914	0.12	0.12	0.12	0.86	0.12	0.98	...	1.98	0.99	...	...	0.86	0.99
1915	0.13	0.13	...	0.64	0.26	3.18	...	2.41	0.51	0.26	...	1.02	0.64

* Bronchitis and Pneumonia.

† 1911 and following years, Rates are calculated on the Nett Population.

The following Four Tables are forms forwarded by the Local Government Board to be filled up with the specified Local Statistics of the District. Vital Statistics of the whole District during 1915 and previous years.

Local Government Board. TABLE I. Bridgend Urban District.

Year.	Population estimated to middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to District.			
		Unconnected number.		Nett.	Num-ber.	Rate.	of Non-residents register'd in the District.	of Resi-dents not register'd in the District.	Under 1 year.		At all Ages.	
									Number.	Rate per 1000 nett Births.		Number	Rate.
		3	4	5	6	7	8	9			10			11	12	13
1910	7985	248	229	28.7	110	13.7	40	11	17	68.5	81	10.54
1911	8584	211	194	25.0	129	14.7	25	9	18	92.7	113	14.56
1912	8238	236	223	28.0	105	12.7	24	4	15	66.7	85	10.70
1913	8307	221	210	26.2	106	12.7	32	13	24	114.2	87	10.89
1914	8409	201	191	23.6	129	15.3	55	9	9	47.1	83	10.26
Civil ...	8000	...	...	21.5	...	...	...	...	...	...	...	...
Gross } 1915	8383	178	172	...	117	13.96	31	9	9	52.32	...	...
Nat. Reg.	7778	...	...	...	...	...	...	...	...	...	95	12.21

NOTES.—This Table is arranged to show the gross births and deaths registered in the District during the calendar year, and the births and deaths properly belonging to it with the corresponding rates. The rates should be calculated per 1000 of the estimated gross population as stated in Col. 2, without the use of the standardising factor for the district given in the Annual Report of the Registrar General. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

1915.—
Area of District in acres } 1213.705.
(land and inland water }
1904.— " 700.757.
1901.— " 700.757.

Density, 7.02.
" " 9.50.
" " 8.66.

Total population of all ages—8021.
Total families or separate occupiers—1652.
Average persons per house—4.65.

At
Census,
1911. }
Institutions outside the District receiving
sick and infirm persons from the District—
Glam. County Asylum, Cardiff Infirmary,
Swansea Hospital, Porthcawl Rest.
Within District—Bridgend & Cowbridge
Workhouse Infirmary & Cottage Hospital.

LOCAL GOVERNMENT BOARD.—TABLE IA.—Vital Statistics of separate Localities in 1915, and previous years.
Bridgend Urban District.

Names of Localities*	1.—NORTH WARD.				2.—SOUTH WARD.				3.—WEST WARD			
YEARS.	Population esti- mated to middle of each year	Births Registered	Deaths at all ages	Deaths under 1 year	Population esti- mated to middle of each year	Births Registered	Deaths at all ages	Deaths under 1 year	Population esti- mated to middle of each year	Births Registered	Deaths at all ages	Deaths under 1 year
	a	b	c	d	a	b	c	d	a	b	c	d
1904	5017	149	80	26					1670	60	26	11
1905	5374	155	81	20					1711	54	32	4
*1906	2930	87	31	5	2591	64	43	10	1723	45	33	5
1907	2974	74	38	8	2582	77	35	12	1700	45	28	3
1908	3062	106	44	9	2548	69	32	9	1772	39	25	4
1909	3214	103	38	5	2696	62	34	8	1790	38	25	5
1910	3350	96	36	8	2801	84	30	5	1834	49	15	2
1911	3637	89	39	11	2639	60	46	5	1808	45	28	2
1912	3764	102	33	7	2675	76	34	4	1799	45	18	4
1913	3787	87	30	5	2730	80	37	16	1790	43	20	3
1914	3842	80	32	7	2776	61	31	1	1791	49	20	1
Average of Years 1906 to 1914.	3395·5	91·5	35·6	7·2	2615·3	70·3	35·7	7·8	1777·2	44·2	23·5	3·2
1915	3570	74	35	2	2580	60	36	5	1716	38	24	2

* The North and South Wards, previous to the year 1906, constituted Oldcastle ; Newcastle is now the West Ward.

LOCAL GOVERNMENT BOARD.—TABLE II.
Cases of Infectious Disease notified during the year 1915.

NOTIFIABLE DISEASE	Cases notified in whole district							Total Cases notified in each locality			Total Cases removed to Hospital	
	At all Ages	At Ages Years						North Ward	South Ward.	West Ward		
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65					65 upwards
Diphtheria (including Membranous Croup)	10	1	2	2	2	3	...	...	1	6	3	4 equals 40 per cent.
Erysipelas ...	5	...	1	1	...	1	1	1	3	1	1	...
Scarlet Fever ...	77	2	18	49	4	4	...	...	49	13	15	38 equals 49·3 per cent.
Enteric Fever ...	4	...	...	1	1	...	2	...	3	1	...	3 equals 75 per cent.
Puerperal Fever ...	2	...	...	...	...	2	...	...	...	2	...	...
Totals ...	98	3	21	53	7	10	3	1	22	23	19	45 equals 49·4 per cent.

Isolation Hospital or Hospitals – Cefn Hirgoed Isolation Hospital, outside the District ; Bridgend Hospital Committee.

Sanatoria, &c. – Cefn Hirgoed Small Pox Hospital, outside the District ; Ogmores Hospital Committee.

TABLE III.—BRIDGEND URBAN DISTRICT.
Deaths registered during the Calendar Year 1915, classified by Age and Cause.

CAUSES OF DEATH.		Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.										Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
1915.		All Ages	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	I I	
I		2	3	4	5	6	7	8	9	10		
All causes, certified	...	...	...	...	...	...	...	...	...	...	...
" uncertified	...	...	...	2	...	...	...	...	...	...	...
Enteric Fever	...	1	...	...	...	...	...	...	1	...	1
Measles	...	2	...	2	...	...	...	...	...	...	...
Whooping Cough	...	4	2	...	2	...	...	...	...	...	...
Diphtheria and Croup	...	1	...	...	...	1	...	...	...	...	...
Influenza	...	1	...	...	...	...	...	1	...	...	...
Phthisis (Pulmonary Tuberculosis)	...	5	...	...	...	...	2	2	1	...	1
Tuberculous Meningitis	...	1	...	1	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	1	...	...	...	...	...	1	...	...	...
Cancer, malignant disease	...	4	...	...	...	...	...	1	1	2	4
Organic Heart Disease	...	19	...	...	...	...	...	1	7	11	11
Bronchitis...	...	11	...	...	...	...	...	...	1	10	3
Pneumonia (all forms)	...	14	1	1	2	1	.	3	4	2	4	
Other Diseases of Respiratory Organs	...	...	...	...	...	...	...	...	...	...	2
Diarrhoea and Enteritis...	...	1	...	1	...	...	...	...	...	...	...
Cirrhosis of Liver	...	2	...	...	...	...	...	1	1	...	...
Nephritis & Bright's Disease	...	2	...	...	...	...	...	...	...	2	2
Puerperal Fever	...	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation including Premature Birth	...	1	1	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	...	5	...	...	...	...	1	1	1	2	1
Other Defined Diseases	...	16	2	1	...	...	...	1	5	7	8
Diseases ill-defined or unknown	...	3	3	...	...	...	...	...	...	...	2
		95	9	6	4	2	3	13	22	36	39	

TABLE IV.—BRIDGEND URBAN DISTRICT. INFANTILE MORTALITY, 1915.
 Nett Deaths from stated causes at various Ages under 1 Year of Age.

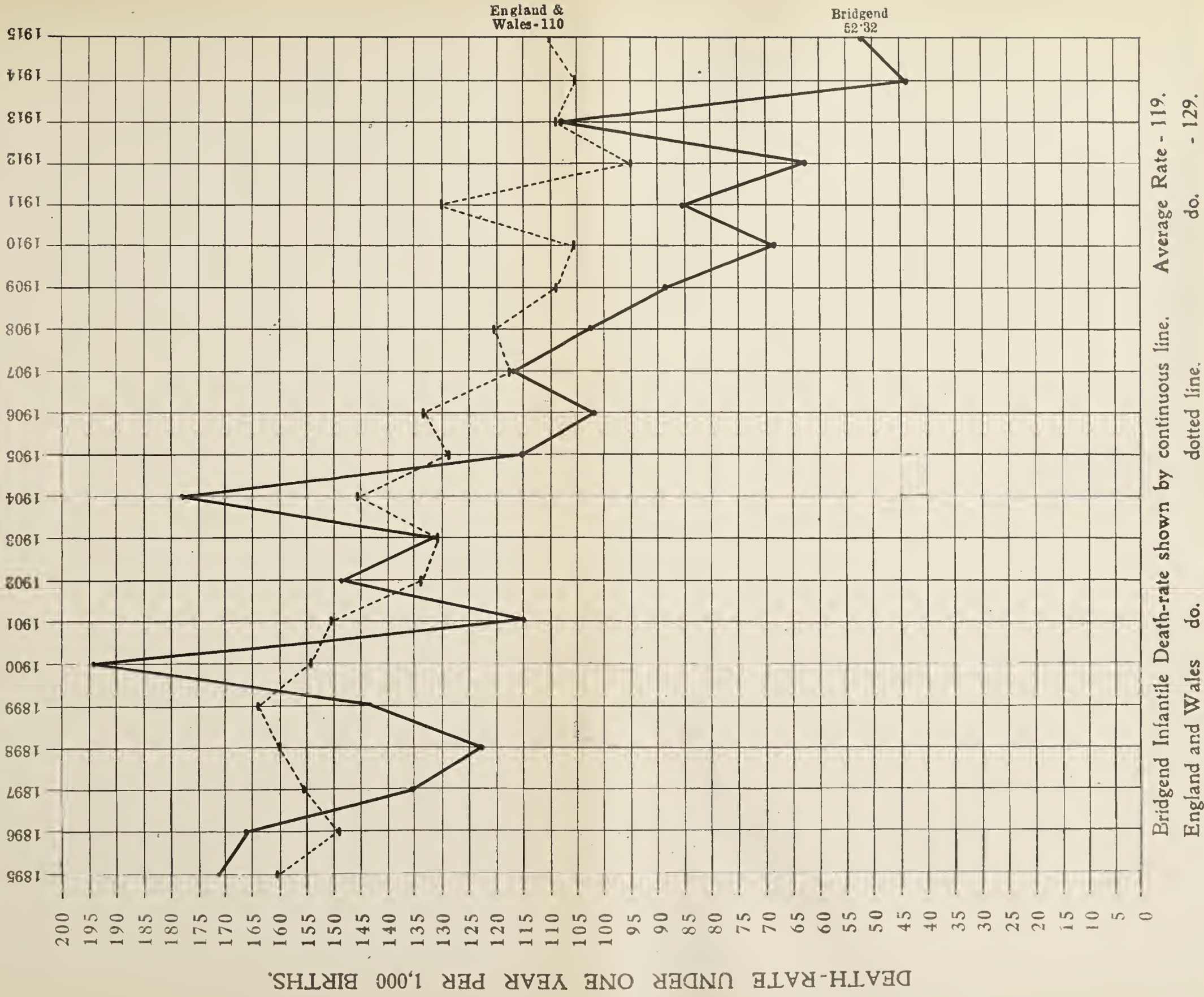
CAUSES OF DEATH.		Under 1 week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 weeks.	4 Weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total D'ths under One Year.
All Causes	Certified.	...	...	...	...	...	...	...	...	...	...
	Uncertified.	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	1	...	1	2
Meningitis (not Tuberculous)	..	...	...	...	...	...	...	...	1	1	2
Pneumonia (all forms)	...	...	...	1	...	1	...	...	...	...	1
Premature Birth	...	1	...	...	...	1	...	...	...	...	1
Atrophy, Debility & Marasmus	...	...	...	...	1	1	...	1	1	...	3
Totals		1	...	1	1	3	...	2	2	2	9

Nett Births registered } legitimate 168.
 during the calendar year } illegitimate 4.

Nett deaths registered } legitimate infants, 9—5·4 per cent.
 during the calendar year of } illegitimate infants, 0—0 per cent.

INFANTILE MORTALITY IN BRIDGEND.

COMPARED WITH AVERAGE OF ENGLAND AND WALES.



BRIDGEND URBAN DISTRICT.—PHTHISIS: SANATORIUM AND HOSPITAL ACCOMMODATION.

Classes for which accommodation is provided.	By whom provided. Welsh Memorial	Do the Sanitary Authority use— (1) Their Isolation Hospital or (2) Their Small-pox Hospital. for cases of Phthisis?	Do the Sanitary Authority reserve Beds in any Phthisis Sanatorium: If so, how many, and in what Sanatorium?	Do the Sanitary Authority provide Portable Open-air Shelters or Tents?
(a) Early Cases				
(b) Intermediate Cases	All Cases.	The Small-pox Hospital	No.	No.
Advanced Cases				

Have the Council, or any Private Body, provided a Dispensary? If so, give particulars.—No.

Scarlet Fever.

No death from Scarlet Fever was registered. No death since 1 in 1902 has occurred.

For England & Wales the death-rate was 0.08. For the 148 Smaller Towns the rate was 0.06.

The number of cases certified was 77, as compared with 42 in 1914; 43 in 1913; 20 in 1912; 36 in 1911; 28 in 1910.

The case-prevalence was 9.79 per 1,000; 5.19 in 1914; 5.38 in 1913; 2.52 in 1912; 4.45 in 1911; 3.51 in 1910.

The prevalence rate of Scarlet Fever was for England and Wales, 3.59; County of Glamorgan, 4.99; Briton Ferry, 7.26; Oystermouth, 2.23; Maesteg, 14.92.

Of the cases 49.3 per cent. were removed to Hospital; 71.4 in 1914; 65.1 per cent. in 1913. This tended to diminish epidemic prevalence, as infected children were isolated and prevented from spreading infection. Epidemic prevalence was present throughout Sept. to the end of the year.

Diphtheria.

One death was due to Diphtheria as compared with one death in 1914; no death in 1913; one death in 1912; no death in 1911; no death in 1910.

The death-rate was 0.13 per 1,000; 0.12 in 1914; 0 in 1913; 0.13 in 1912; 0 in 1911; 0 in 1910.

The rate for England and Wales was 0.15.

The rate for the Smaller Towns 0.15.

The case-fatality was 10.0 per cent.; 7.1 per cent. in 1914; 0 per cent. in 1913; 16.6 per cent. in 1912; 0 per cent. in 1911; 0 per cent. in 1910.

The number of cases was 10 as compared with 14 in 1914; 8 in 1913; 6 in 1912; 5 in 1911; 9 in 1910.

The case-prevalence was 1.27 per 1,000; 1.73 in 1914; 1.00 in 1913; 0.75 in 1912; 0.62 in 1911; 1.13 in 1910.

Of the cases 40.0 per cent. were removed to Hospital.

The prevalence rate of Diphtheria was for England and Wales, 1.52; County of Glamorgan, 1.53; Briton Ferry, 0.00; Oystermouth, 1.34; Maesteg, 1.30.

The Bacteriological examination of Diphtheria swabs should be supplied gratuitously. Also anti-toxin not provided for in Insurance Act.

Enteric Fever.

One death was caused by Enteric Fever, probably abdominal tuberculosis—as compared with one death in 1914, not belonging to the town; no death in 1913; no death in 1912; no death in 1911; no death in 1910; no death in 1909; no death in 1908; none in 1907; none in 1906; 16 in 1905, when filtration of the water was effected.

The death-rate was 0.13 per 1,000; 0.12 in 1914; 0 in 1913; 0 in 1912; 0 in 1911; 0 in 1910; 0 in 1909; 0 in 1908; 0 in 1907; 0 in 1906; 2.26 in 1905.

The rate for England and Wales for Enteric Fever was 0.04.

The rate for the 148 Smaller Towns was 0.04.

The case fatality was 25 per cent. as compared with 0 per cent. in 1914; 0 per cent. in 1913; 0 per cent. in 1912; 0 per cent. in 1911; 0 per cent. 1910.

The one death in 1915 compares favourably with the rate of England and Wales for Enteric Fever.

Taking the figures for Enteric Fever in Table VIIIA., and comparing the sum of the death-prevalence per 1,000 in the 10 earlier years with the sum of the 10 later years, one finds that the difference in favour of the later series of years is 7.98 (excluding the 2 deaths—1 in 1914, and 1 in 1915), so that the prevalence is now greatly in favour of the later series of years.

The death-prevalence, therefore, may be considered to be distinctly decreased since 1894; no death occurred belonging to the town in 1915, 1914, 1913, 1912, 1911, 1910, 1909, 1908, 1907, and 1906, although there had been not less than 2 deaths per annum since 1891 until 1906.

Taking the 22 years from 1893, during which notification of cases has been compulsory, and contrasting the earlier 11 years with the later 11 years, one finds that the sum of the prevalence per 1,000 of the earlier period equals 56.12, and that of the later period 21.58, the difference, 34.54, is much in favour of the later period. The difference in 1914 was 29.03.

The average annual rate of the later 11 years is 34.54 less than that of the earlier 11 years.

Contrasting the deaths during the six years 1904 to 1909, inclusive, with 1910 to 1915, we find that there are no deaths in the later years, as compared with an average of 1.9 per annum in the earlier period.

In regard to the cases, there were 24.1 per annum in the earlier series, as compared with 1.6 yearly in the later.

The case-prevalence, therefore, may be considered to be altered, considerably, for the better during the series of years from 1894 until 1915. I cannot consider that the death at Blackmill should be justly included among the deaths due to enteric fever at Bridgend; nor the case of tuberculosis notified to me in 1915. Therefore the case prevalence would be 0.0 in 1914, and 1915.

The case-prevalence of Enteric Fever for England and Wales was 0.18; Glamorgan County, 0.19; Briton Ferry, 0.12; Oystermouth, 0.15; Maesteg, 0.04.

The following table has been compiled partly from my own figures, 1886 to 1915, partly from the details of deaths supplied to me by the L.G.B., and the cases of fever from 1877 to 1892 have been estimated on the average number of cases to deaths in the years since the adoption of notification. The populations of the earlier years were arrived at from the census years by arithmetical progression.

This Table will, I hope, prove interesting as showing the diminution in deaths and cases of Enteric Fever in the year following the introduction of filtered water to town:—

Year.	Population.	Deaths.	Rate per 1000.	Cases.	Rate per 1000
1877	... 3,943	... 5	... 1.26	... 36	... 9.13
1878	... 3,996	... 1	... 0.25	... 7	... 1.75
1879	... 4,049	... 3	... 0.74	... 22	... 5.43
1880	... 4,102	... 1	... 0.24	... 7	... 1.70
1881	... 4,155	... 1	... 0.24	... 7	... 1.68
1882	... 4,207	... 0	... Nil	... 0	... Nil
1883	... 4,259	... 4	... 0.94	... 29	... 6.81
1884	... 4,311	... 4	... 0.93	... 29	... 6.73
1885	... 4,363	... 0	... Nil	... 0	... Nil
1886	... 4,415	... 3	... 0.67	... 21	... 4.76
1887	... 4,467	... 7	... 1.56	... 50	... 11.11
1888	... 4,519	... 1	... 0.22	... 7	... 1.55
1889	... 4,571	... 4	... 0.87	... 29	... 6.34
1890	... 4,623	... 2	... 0.42	... 17	... 3.67
1891	... 4,675	... 0	... Nil	... 0	... Nil
1892	... 4,817	... 2	... 0.41	... 14	... 2.91
1893	... 4,956	... 6	... 1.21	... 38	... 7.65
1894	... 5,095	... 3	... 0.58	... 22	... 4.31
1895	... 5,233	... 4	... 0.76	... 15	... 2.86
1896	... 5,379	... 2	... 0.37	... 23	... 4.27
1897	... 5,511	... 2	... 0.36	... 19	... 3.44

Year.	Population.	Deaths.	Rate per 1000.	Cases.	Rate per 1000
1898	... 5,649	... 5	... 0.88	... 49	... 8.56
1899	... 5,788	... 11	... 1.90	... 78	... 13.47
1900	... 5,927	... 3	... 0.50	... 27	... 4.38
1901	... 6,066	... 2	... 0.32	... 32	... 5.25
1902	... 6,536	... 3	... 0.49	... 22	... 3.36
*1903	... 66,04	... 3	... 0.45	... 18	... 2.72
1904	... 6,687	... 3	... 0.45	... 19	... 2.84
*1905	... 7,085	... 16	... 2.26	... 117	... 16.51
1906	... 7,244	... 0	... Nil	... 4	... 0.55
1907	... 7,256	... 0	... Nil	... 0	... Nil
1908	... 7,470	... 0	... Nil	... 1	... 0.13
1909	... 7,700	... 0	... Nil	... 2	... 0.26
1910	... 7,985	... 0	... Nil	... 2	... 0.25
1911	... 8,084	... 0	... Nil	... 1	... 0.12
1912	... 8,238	... 0	... Nil	... 0	... Nil
1913	... 8,307	... 0	... Nil	... 3	... 0.38
1914	... 8,409	... 0	... Nil	... 0	... 0.00
1915	... 7,866	... 1	... 0.13	... 4	... 0.51

*1903—Sewerage Scheme completed.

*1905—The above Figures showing the change in the incidence of the disease since the filtration of the water in 1905 are very striking.

The one Enteric Fever case in 1915 was a death from Tuberculosis.

The results of bacteriological examination of the water during September quarter, 1911, were not so satisfactory in regard to the number of Bacilli Coli present as in the earlier reports of 1905; most careful filtration, therefore is of the utmost importance, as that is, in all likelihood, our sole barrier against an outbreak of Typhoid Fever. The 1912 results were satisfactory. In 1913 the reports were satisfactory until the last quarter of the year, when typical bacillus coli was reported isolated from 10 c.c. and from 50 c.c. of the water. In 1914 typical b. coli were isolated from 50 c.c. of water. In 1915 b.c. were isolated from 2 and 10 c.c. Four cases of enteric developed.

Erysipelas.

No death was recorded from Erysipelas, as compared with no death in 1914; no death in 1913; no death in 1912; 1 death in 1911; no death in 1910.

The death-rate was 0.0 per 1,000; 0.0 in 1914; 0.0 in 1913; 0.0 in 1912; 0.12 in 1911; 0.0 in 1910.

Five cases were reported as compared with 2 in 1914; 2 in 1913; 1 in 1912; 4 in 1911; 2 in 1910; 3 in 1909.

The case-fatality was 0.0 per cent.; 0.0 per cent. in 1914; 0.0 per cent. in 1913; 0.0 per cent. in 1912; 25 per cent. in 1911; 0.0 per cent. in 1910; 0.0 per cent. in 1909.

The case-prevalence was 0.64 per 1,000; 0.24 in 1914; 0.25 in 1913; 0.13 in 1912; 0.49 in 1911; 0.25 in 1910; England & Wales, 0.66; County of Glamorgan, 0.56; Briton Ferry, 0.00; Oystermouth, 0.74; Maesteg, 0.54.

Puerperal Fever.

There was one death from Puerperal Fever, as compared with no death in 1914; no death in 1913; no death in 1912; no death in 1911; no death in 1910; and no death in the intervening years until one in 1892.

Two cases were notified: 0 in 1914; 0 in 1913; 0 in 1912; 0 in 1911; 0 in 1910.

Death-rate per 1,000 was 0.13, and prevalence 0.26.

Prevalence—England and Wales, 0.06; County of Glamorgan, 0.08; Briton Ferry, 0.35; Oystermouth, 0.15; Maesteg, 0.00.

The deaths and cases in previous years of the above notified diseases will be found in Tables VIII and VIIIA.

Diarrhœa.

One death was caused by Diarrhœa under 2 years, as compared with 1 in 1914; 1 in 1913; 1 in 1912; 6 in 1911; 1 in 1910.

The death-rate was 0.13 per 1,000; 0.13 in 1913; 0.13 in 1912; 0.76 in 1911; 0.13 in 1910.

The rate under 2 years of age per 1,000 births was 5.78; 5.23 in 1914. England and Wales, 18.18; 148 Small Towns, 17.15.

To protect from this disease all organic matter and refuse should be destroyed. Dust carts contain, largely, organic refuse and dust, so should invariably be covered.

When it is considered that this dust, unless removed when damp or during wet weather, may be blown into shops and through the windows of other houses, where milk and other food may be contaminated by its deposition, greater care should be exercised in laying it and in its removal.

In dry weather may be seen in our streets clouds of dust accompanying the raising of every shovelful to an uncovered dust cart, and the street filled with a dust cloud for 20 or 30 yards above or below the site of the operation. This is seen at its worst when no watering of streets is carried out.

I hope that the cards "Hints on the feeding and management of babies and young children," distributed to mothers on the registration of their infants may prove of some value.

In 1911, that dry summer, the need for a Nuisance Inspector, who would devote his whole time to sanitary work, had been shown definitely; a house-to-house inspection should have been carried out; house refuse in the vicinity of dwellings, and other nuisances rigorously removed; defective sanitary arrangements repaired; unpaved back yards sought for and reported with a view to their, promptly, being paved or concreted.

I cannot help thinking that by such means some deaths and certainly some illnesses may often be averted.

Town Dust.

(By Dr. C. W. Saleeby).

Town dust is itself richly contaminated with bacteria, and serves as their vehicle, for which the wind provides motor power. The dust of our streets is best described as dried sewage. The least part of it is derived from the attrition of paving stones by traffic. Town-dust, therefore, is an actively infectious assortment of microbes, their virulence depending on many factors, of which the degree of exposure to direct sunlight, that incomparable antiseptic, is probably the most important. To expose the meat of butchers' shops to such dust is little more than disgusting, in effect, for the meat will be cooked. To expose milk, or such fruit as strawberries, to such dust, as we do, is to ask for disease and get it.

To neglect the street excrement which dries into dust is to favour the insects which breed in it. Of these, in this country, the most important is the domestic fly. Surely the time has passed when anyone can desire or permit me to tell the alphabet of this matter to a modern audience. Merely I remind the reader that this country, and its Army doctors such as Sir Ronald Ross and Sir David Bruce, to say nothing of Sir Patrick Manson before them, are the creditors of all mankind in the demonstration of the part played by insects as carriers of microbes. Curious is it, however, that we should have incriminated and dealt with mosquitoes and tsetse-flies, should have cleansed and saved many parts of the Tropics, should have set the American army doctors on the lines which abolished the domestic

mosquito and yellow fever, and made the Panama Canal possible—before we realised that our own domestic fly is slaughtering us and our children in scores of thousands every year, with our connivance and presumably with our applause.

It follows that the neglect of the dust of our streets is, in fact, forewarned, wholesale, rampant infanticide, of which the figures of the summer months will long bear hideous record, unless the present counsels of folly and filth be overruled. I appeal to every reader with a municipal vote to see to it, at once, that the present outrage upon public decency and safety be ended forthwith. To use the lowest argument I know, it costs less to water the streets than to bury the babies killed by the present nauseous and murderous economy."

Scavenging.

I am directed by the Local Government Board to point out that the Board trust that the Council will take into consideration at an early date the question whether any alteration is required in the present arrangements for storing, collecting and disposing of refuse in their district, and will endeavour to arrange that it is especially desirable at the present time, when so many districts are congested with troops and refugees, and when there are peculiar dangers of the spread of infectious disease, that sanitary authorities should do all that is in their power to prevent the retention of accumulations of refuse in the neighbourhood of dwellings, and generally to maintain an efficient service for dealing with house refuse. In particular the Board would suggest that the Council should consider whether all or any of the following steps are necessary in regard to their district :—

- (1). To require a sanitary bin to be provided in connection with all new houses and buildings,
- (2). To encourage owners and occupiers of existing houses to provide covered sanitary bins in place of other refuse receptacles ;
- (3). To undertake with their own staff the scavenging in the populated parts of their district, and to remove all refuse from these parts in properly covered carts at least once a week, especially during the summer.

Whooping Cough.

Four deaths were due to Whooping Cough, as compared with no death in 1914 ; no death in 1913 ; 3 deaths in 1912 ; no death in 1911 ; no death in 1910.

The death-rate was 0.51 ; 0.0 in 1914 ; 0.0 in 1913 ; 0.38 in 1912 ; 0.0 in 1911 ; 0.0 in 1910.

The rate for England and Wales was 0.21. For the 148 Smaller Towns the rate was 0.22.

Measles.

Two deaths from Measles were registered, as compared with no death in 1914 ; no death in 1913 ; no death in 1912 ; 5 deaths in 1911 ; no death in 1910.

The death-rate was 0.26 per 1,000, as compared with 0.0 in 1914 ; 0.0 in 1913 ; 0.0 in 1912 ; 0.64 in 1911 ; 0.0 in 1910.

The rate for England & Wales was 0.43 ; for 148 Smaller Towns 0.52.

The deaths from these three diseases in previous years may be seen in Tables VII. and VIIA.

Epidemic Influenza.

One death was attributed to Influenza, as compared with 1 death in 1914; 1 death in 1913; 2 deaths in 1912; no death in 1911; 2 deaths in 1910.

The death-rate was 0.13; 0.13 in 1914; 0.13 in 1913; 0.25 in 1912; 0.0 in 1911; 0.25 in 1910.

The deaths from Influenza in previous years and their prevalence per 1,000 of population can be found in Tables IX. and IXA. Influenza was most prevalent in the first and fourth quarters of the year.

Deaths from Tuberculous Diseases.

The Tuberculous deaths were 7; 0.89 per 1,000 of the population; about one-fourteenth or 6.36 per cent. of the total deaths; and 0.49 below the average annual rate of the preceding ten years; 8 deaths, 0.99 per 1,000 in 1914; 4 deaths, 0.50 per 1,000 in 1913; 9 deaths, 1.13 per 1,000 in 1912; 16 deaths, 1.98 per 1,000 in 1911; 9 deaths, 1.13 per 1,000 in 1910.

Phthisis.—5 deaths, equalling 0.64 per 1,000 persons; one-nineteenth or 4.25 per cent. of the total deaths; and 0.42 below the average annual rate for phthisis of the previous ten years. 7 deaths, or 0.86 per 1,000 in 1914; 2 deaths, or 0.25 per 1,000 in 1913; 8 deaths, or 1.00 per 1,000 in 1912; 13 deaths or 1.66 per 1,000 in 1911; 7 deaths, or 0.88 per 1,000 in 1910.

There were two other Tubercular deaths—equalling 0.26 per 1,000; 2.10 per cent. of the total deaths; and 0.06 below the average annual rate of the last ten years. 1 death, or 0.12 in 1914; 2 deaths, or 0.25 in 1913; 1 death, 0.13 per 1,000 in 1912; 3 deaths, 0.38 per 1,000 in 1911; 2 deaths, 0.25 per 1,000 in 1910.

Notifications of tuberculosis were 14. In 1914 were 11; in 1913 were 9.

Deaths under One, under Two, and under Five Years of Age.

Deaths under one year were 9; 1.14 per 1,000 persons, and one-tenth or 8.36 per cent. of the total deaths; 10.84 per cent. in 1914; 27.60 per cent. in 1913; 17.64 per cent. in 1912; 15.04 per cent. in 1911; 18.51 per cent. in 1910.

The deaths of children under two years were 15; 1.91 per 1,000, one-seventh or 14.68 per cent. of the total deaths; 12.05 per cent. in 1914; 27.60 per cent. in 1913; 21.18 in 1912.

The deaths of children under 5 years were 19; 2.41 per 1,000, one-fifth or 20 per cent. of the total deaths; 15.66 per cent. in 1914; 28.73 per cent. in 1913; 24.71 per cent. in 1912; 23.0 per cent. in 1911; 27.16 per cent. in 1910.

School Closing.

No schools were closed during this year, although children infected with Scarlet Fever and Diphtheria attended more than one of the Schools. Thirty-eight cases of Scarlet Fever, 3 of Enteric Fever, and 4 of Diphtheria were removed to the Isolation Hospital, or 49.40 per cent.; 71.42 per cent. in 1914; 64.8 per cent. in 1913.

Relative cleanliness of scholars at Public Elementary Schools in Bridgend Urban District :—

		Clean	76 per cent.	96 per cent.	78 per cent.
Head		Clean	76 per cent.	96 per cent.	78 per cent.
		Nits	21.6 „	3.5 „	12.1 „
		Pediculi	2.8 „	0.4 „	1.5 „
Body		Clean	83.5 „	72.8 „	78.0 „
		Dirty	2.3 „	3.2 „	2.0 „
		Verminous	—	—	—
Clothing		Clean	94.7 „	92.2 „	93.4 „
		Dirty	5.2 „	7.8 „	6.6 „

The question of the cleanliness of children is a condition not, in the smallest degree, dependent on poverty or low wages but a matter of the character of the parents.

It may be seen above that in other respects than the head, viz., the body and clothing, the girls have a slight advantage over the boys in the way of cleanliness; but in regard to the heads the girls were worse affected as to nits in the hair by 18 per cent., or six to one, and as to pediculi they were more affected by $2\frac{1}{2}$ per cent., or again six to one.

So it may be inferred from this that the difference between the sexes in this particular is caused by the longer hair worn by the girls, it points strongly to the advantage to be gained by keeping the hair of girls short or fastened up during the years of school attendance.

It would be useful were the fiat of fashion to proclaim this innovation, she would for once, prove helpful in the purpose of her arbitrary decrees.

Water Supply.

The water supply, as usual, is plentiful. Greater care should be observed in the process of filtration. Filtration is usually performed on the large scale in towns by passing the water through sand filter beds.

When first started these filter beds allow bacteria to pass freely, and continue to do so till the water has deposited a slimy layer on the surface. They then remove about 95 per cent. of the organisms, but never remove them all.

The slimy layer as it increases, causes an increasing resistance to the passage of the water and has to be removed periodically by scraping. When the beds are scraped, more bacteria get through than usual; and increases in water borne diseases have repeatedly been noticed after the scraping of the filter beds or their derangement by floods.

Filtration, therefore, is only efficient during the middle of the period between the scrapings, at first the water passes through too quickly and at last too slowly.

It is only during the middle of the interval between the cleansings that the filter can be relied upon to ensure efficient purification of the water; and that is the sole time when water should be delivered to the public for drinking and domestic uses.

The result of the bacteriological examination of quarterly samples was, in 1913, most satisfactory until the December quarter, when typical B. Coli was found in 100.c.c. and 500.c.c. of water. In the first quarter of 1915 B. Coli were isolated from 2 and 100.c.c. In June the chemical and microscopical examination indicated less efficient filtration than with recent previous samples.

The Slaughter Houses.

The building of a properly constructed and equipped Public Slaughter House is a great need. This should be under the immediate control of, and owned by the Council.

The private slaughter house adjoining the Dunraven slaughter house has now been closed, and the District Council are awaiting plans from the Dunraven Estate for the conversion of the same into a cooling room in connection with the adjoining building.

Common Lodging Houses.

There are two of these—one in Newcastle and one in Oldcastle. They are fairly well conducted.

Sewerage.

Re-inspection of all sewers and drains is now called for.

General Conditions.

The general state of the district has been much improved by the completion of the sewerage works and filtration of the water; there were four cases of Enteric Fever in the year. There has been no death from Enteric Fever since 1905, justly belonging to the town.

Thirty-seven houses have been erected—23 in the North Ward, 12 in the South Ward, and 2 in the West Ward. None were closed as "unfit."

Twenty-one dwelling houses were in course of erection; 44 plans of new buildings, alterations and additions to existing houses were presented.

Dwelling-houses	...	...	...	...	21
Alterations and Additions			...	...	12
Workshops and Stores	...	...	...	...	11

In June, 1903, 1,355 houses were occupied; in 1904 there were 1,372, an increase of 17; in 1905, 1,433, an increase of 61; in 1906, 1,467, an increase of 64; in 1907, 1,520, an increase of 53; in 1908, 1,535, an increase of 15; in 1909, 1,573, an increase of 38; in 1910, 1,603, an increase of 30; in 1911, 1,656, an increase of 53; in 1912, 1,685, an increase of 29; in 1913, 1,701, an increase of 16; in 1914, 1,720, an increase of 19; in 1915, 1,753, an increase of 33. Vacant houses and lock-up shops, 85.

The following improvements have been carried out since the date of my last Annual Report:—See the Surveyor's Report for 1915.

Tar-painting Road Surfaces.—The Council is gradually increasing their annual expenditure under this head. In 1910, the area painted was 14,480 square yards; in 1911, the area was increased to 18,510 square yards; in 1912, 22,360 square yards were coated; 1913, 24,500 square yards, an increase of 2,100 square yards. Cost £68 10s. 6d. 1914, area tarred almost double that of preceding year; 42,270 as against 24,500 in 1913. No fresh area tarred in 1915.

Housing, Town Planning, etc., Act.

Details required under Article V. of the Housing (Inspection of District Regulations, 1910):—

- 1.—Number of Dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation. —
- 2.—Number of representations made to the Local Authority with a view to the making of Closing Orders. —
(Relating to the houses mentioned above).
- 3.—Number of Closing Orders made —
(In respect of the above-mentioned houses).
- 4.—Number of Dwelling houses the defects of which were remedied without the making of Closing Order. —
- 5.—Number of Dwelling houses which, after the making of Closing Orders, were put into a fit state of human habitation. —
- 6.—General character of the defects found to exist —The defects usually disclosed are those generally associated with old houses, viz., insufficient ventilation, deficient headroom, defective roofs and shutes, and unsatisfactory drainage.

Some years ago I drew attention to the need of a Post-mortem Chamber for the town; the population has much increased since then and also the number of post-mortem examinations performed. I find the small dead-house at the Cemetery totally unfitted for such purpose.

Bodies have to be taken to the Workhouse Mortuary for Post-mortem purposes.

In my opinion the time has undoubtedly arrived when the construction of a properly equipped Post-mortem Chamber can no longer be delayed.

The regulations under the Dairies, Cowsheds, and milkshops Order are enforced. Several structural and other defects were remedied. Three notices were served where defects were observed.

The Bake-houses, Factories, and Workshops have been inspected, reported upon, and improvements effected.

PULMONARY TUBERCULOSIS.

Houses are disinfected after the death or removal of persons suffering from Phthisis, if the Sanitary Inspector is informed of the death or removal.

Compulsory notification of all cases of pulmonary tuberculosis was in operation in 1913; but owing to the issue by the Local Government Board of the Order setting out the appropriate action that can be taken under the Public Health (Tuberculosis) Regulations, 1912, and the suggestion that both acute poliomyelitis and cerebro-spinal fever should be made notifiable, I wrote to the Council as follows:—

Pulmonary Tuberculosis, Etc.

It is in the opinion of the Local Government Board desirable in the interest of the public health that both acute Poliomyelitis and Cerebro-Spinal Fever should be made notifiable in order that the Council and their Medical Officer of Health may be informed as soon as possible of the occurrence of cases of these diseases.

Notification of Pulmonary Tuberculosis is now by the Order, 1912, made compulsory.

Under the Public Health Act, 1875, power was given to local authorities either to provide sanatoria or to contract for the use of such institutions.

The Local Government Board has, by the Order, given a general power to the Local Authority, on the advice of their Medical Officer of Health, to supply such medical assistance, facilities and articles as may be necessary for detecting Pulmonary Tuberculosis, for preventing the spread of infection and for removing conditions favourable to infection.

The Local Authority is also empowered to appoint any necessary additional officers.

Apart from the actual treatment of cases, the Local Government Board again urges on local authorities the great importance of their making full use of their powers of preventing overcrowding and of securing the removal of any conditions tending to injure the health of persons residing in their district, and for that purpose may appoint such officers, do such acts, and make such arrangements as may be necessary

I beg to urge upon the Council the need of taking certain action in the matter of preventing the spread of Pulmonary Tuberculosis and of the need of appointing a Health Visitor, who should also make enquiries and give advice to mothers under the Notification of Births Act.

These Acts are now not a matter of choice, but are made compulsory; in order to carry out the Tuberculosis Regulations

The Council should provide for:—

1.—The destruction or disinfection of infected articles, and the cleansing or disinfecting of rooms or premises.

2.—The safe disposal or destruction of infectious material, and the supply of spit-cups to necessitous persons.

3.—Cards of instruction or leaflets, simply expressed, for wide distribution.

4.—The appointment of a Health Visitor or Health Inspector.

5.—Bacteriological examination of sputum gratuitously.

6.—The Local Authority may either provide Sanatoria or may contract for the use of such institutions, or may provide or contract for the use of dispensaries or out-patient hospitals.

With regard to 6. The Welsh National Memorial Association has leased the Small Pox Hospital to serve as a Sanatorium for Tuberculous cases, until the 31st March, 1916.

7.—Shelters for the open-air treatment of Consumption are valuable adjuncts to Sanatorium treatment.

In 1911 I made the suggestion that the Small Pox Hospital be utilised as an Education Hospital for cases of early pulmonary tuberculosis. It is now being used for advanced cases, highly infectious.

PUBLIC IMPROVEMENTS.

See Inspector's Report. Page 38.

The Inspector has been called up on munition's work, and has failed to furnish his report for the year.

REQUIREMENTS.

1.—The appointment of a qualified Food Inspector and Health Visitor.
 2.—Since the appointment of a permanent, additional Sanitary Inspector, the inspections of new houses needing inspection prior to their occupation, the still numerous old houses calling for frequent inspections to prevent them falling into disrepair and otherwise becoming insanitary and dangerous, and to carry out the requirements of the Housing Act and Tuberculosis Order have been doubled in number.

3.—The closing or the repair of the dwellings unfit for occupation.

4.—A properly constructed and equipped Post-mortem Chamber.

5.—The Isolation Hospital has now been opened for use seven years; and is occupied almost continuously.

Overcrowding is now frequent; increased Ward accommodation is urgently required.

THE SMALL POX HOSPITAL.

The Small Pox Hospital, Cefn Hirgoed, which serves this district with others of the constituent districts with a combined population of 44,000, has been let to the Welsh Memorial Association for the purpose of a Tuberculosis Sanatorium, which is used for advanced cases that are highly infectious.

If this is a temporary, or emergency, arrangement it may be of advantage to the public welfare so far as the treatment of Tuberculosis is concerned; but, on the other hand, if likely to be a permanent arrangement, it appears from another point of view to constitute a grave danger to the community should a case of Small Pox, unfortunately, be introduced into any one of the constituent districts.

I doubt if the Hospital could be, suddenly, vacated by the Tuberculous patients and be thoroughly disinfected under a period of twenty-four hours. Meantime, how and where is the Small Pox patient to be effectively isolated in such a way as to prevent other persons coming into contact with the infection?

In these days, when it is held that the proportion of unvaccinated persons in the country amounts to about 50 per cent. of the population and when the Hospital provided for Small Pox by the general ratepayers has been devoted to other purposes by the Insurance Act, we should be face to face with a danger which might prove a serious menace to the neighbourhood. To show that this danger is by no means imaginary, I quote the following instructive incident:—

Sanatorium required for Small Pox Cases.

“ Pending the erection of a new and up-to-date sanatorium, the Salford Insurance Committee made temporary arrangement for the reception of consumptive patients at the Borough Small Pox Hospital. Adapting the premises cost the Health Authority several hundred pounds. The Committee considered that this was a suitable arrangement in view of the fact that the Small Pox Hospital had been standing empty about eight years. As a result of the agreement between the Insurance Committee and the Corporation, 35 cases (of tuberculosis) have been under treatment at the hospital for some months.

Now an outbreak of Small Pox has occurred in the Borough, and four cases requiring isolation, the consumptive patients had to be removed from the hospital at a few hours' notice. ”

In addition, it has been noticed that there is a special liability to Tuberculous infection, after an attack of Small Pox, and therefore the wisdom and humanity of sending cases of Small Pox direct to a hastily-emptied and hurriedly-disinfected Consumption Sanatorium might well be doubted.

To be infected with Tuberculosis might appear to many to be too severe a penalty to pay for the careless neglect of vaccination, a neglect which is virtually encouraged by the smooth facilities for obtaining exemption with the consequent absence of legal penalties for non-compliance with the Act.

I have received a communication to the effect that the Local Government Board have consented to the letting of the Hospital to the Memorial Association until 31st March, 1916. The Hospital should now be evacuated by tuberculous patients.

The conditions under which the Board has consented to the letting of the Hospital are as follows :—

- (1) That in the event of the Hospital being required by the Hospital Committee, the Association will deliver up possession upon receipt of twenty-four hours' notice to that effect.
- (2) That no advanced case of Tuberculosis will be received into the Hospital, and
- (3) That no structural alterations or additions will be made to the Hospital without the consent of the Hospital Committee being first obtained.

A letter addressed by the Local Government Board to the Welsh National Memorial Association contains the following caution :—

I am at the same time to direct the special attention of the Commissioners to the condition of approval that no advanced case of Tuberculosis will be received by the Memorial Association upon the premises. The Board understand that at the time of their Inspector's visit there were at least three persons under treatment in the Hospital who were in an advanced state of the disease, while during the year 1914 at least five cases died in the Hospital, and I am to state that the Board consider that in view of the importance at the present time of having the Small Pox Hospital accommodation in the County readily available for the treatment of that disease, it is essential that the above-mentioned condition should be strictly observed in future, and that no case of Tuberculosis other than those who can at once be removed should be admitted to this Hospital.

Notwithstanding the above strongly-worded, grave warning, a case died in the Hospital in April, 1915.

Isolation Hospital.

There appears to be a misapprehension with reference to the accommodation at the Isolation Hospital.

It was originally designed in 1901 to accommodate 12 beds. Any number of persons beyond this would be an infringement of the regulations of the Local Government Board as to the air-space per bed in a Hospital for infectious disease; in cases of emergency, probably, the conditions imposed by the Board might be remitted.

In 1901, the population of the constituent district was 32,534. The usual ratio of accommodation at Isolation Hospitals to the population is one bed per 1,000 persons—equalling 30 beds for the above population.

Even including the beds at the Small Pox Hospital, the accommodation, at the outset, did not comply with the above estimate as to the number of beds.

At the last census, the population of the constituent districts was 43,896, so it will be seen that the present bed accommodation is totally inadequate, as 40 beds, at least, are required to serve that number of persons. It must also be remembered that the Hospital is increasingly resorted to by all classes in the district in infectious cases, so that the Hospital in its present state cannot cope with the burden imposed upon it, and at the same time fulfil the stipulations of the Local Government Board as to the necessary allowance of air-space demanded per bed in an Infectious Hospital.

When it is borne in mind that often adult patients of both sexes, or adolescent boys and girls above fourteen years of age are admitted to Hospital, and when it is remembered that one patient of either sex, or of both, at such ages would require a separate ward for his or her accommodation, it will be seen that, at times, serious difficulties of management occur from the limited number of wards at the disposal of the staff.

In January, 1914, I reported to the Committee as to overcrowding at the Isolation Hospital. In the smaller Scarlet Fever Ward were three patients, two of whom were suffering from a mixed infection of Scarlet Fever and Diphtheria, a mother with two children, the children with the mixed infection, the mother with diphtheria. Luckily the mother had had Scarlet Fever, so they were not separated.

This Ward has air-space for 2 beds.

In the Diphtheria Ward in another Block were three patients, one dangerously ill. This ward is adapted for two patients.

In the larger Scarlet Fever Ward there were 11 patients with authorised air-space for only six.

In this Ward an adult male and two boys, aged 19 and 16, had to be placed, on account of paucity of Ward space, along with several little girls.

Later five patients slept in a small Ward adapted for two beds.

Again one child had to be isolated in the kitchen, another in the bathroom.

During a great part of 1915 the Hospital has been full, at times overcrowded. Now that Measles has been made notifiable, by order of the Local Government Board, and instructions given that first cases should be isolated in Hospital, the need of extra ward accommodation becomes the more exacting.

This year two cases of Diphtheria had, unfortunately, to be treated in the kitchen of the block, and several urgent cases refused

Three new Blocks are required: (1) An observation Block. (2) A Discharging Block. (3) A Measles Block.

I beg to remain, Gentlemen,

Yours faithfully,

WYNDHAM RANDALL,

Medical Officer of Health.

Bridgend,

9th May, 1916.

FACTORY AND WORKSHOP ACT.

- 1.—INSPECTION.—Workshops (including Workshop Laundries), 51 ;
Notices, 3 ; Prosecutions, nil.
- 2.—DEFECTS FOUND.—Overcrowding, 1 ; Remedied, 1 ; Other
Nuisances, 0 ; Remedied, 0. Sanitary Accommodation : In-
sufficient, 2 ; Remedied, 1 ; Defective, 0 ; Remedied, 0. Breach
of Sanitary Requirements for Bakehouses, 0 ; Remedied, 0.
Found, 3 ; Remedied, 2 ; Pending, 1.
Insufficient sanitary accommodation, 0 ; Remedied, 0.
- 3.—REGISTERED WORKSHOPS.—Workshops on the Register at the
end of the year : Workshops, 69 ; Bakehouses, 11.—Total, 80.
- 4.—OTHER MATTERS.—Notified by H.M. Inspector ... 3
Reports sent to H.M. Inspector ... 1
No Home Work.
The conditions, generally, are satisfactory.
No underground bakehouses.
No certificates granted.



ANNUAL REPORT of the Surveyor and Inspector of Nuisances.

*To the Chairman and Members of the Bridgend Urban
District Council.*

GENTLEMEN,

I beg to submit my Ninth Annual Report, which deals with the year 1915.

New Buildings.

Thirty-seven new dwelling-houses were occupied during the year. This more than maintains the average of recent years, as may be seen by the table below. Nearly all of these newly occupied houses belong to either Quarella Road or Merthymawr Road.

1900 ...	5 new houses occupied	1908 ...	33 new houses occupied
1901 ...	1 ,,	1909 ...	38 ,,
1902 ...	20 ,,	1910 ...	40 ,,
1903 ...	21 ,,	1911 ...	34 ,,
1904 ...	32 ,,	1912 ...	33 ,,
1905 ...	27 ,,	1913 ...	13 ,,
1906 ...	12 ,,	1914 ...	8 ,,
1907 ...	42 ,,	1915 ...	37 ,,

The drains of these new houses were tested and approved before the buildings were allowed to be occupied.

Forty-four plans of new buildings, alterations and additions to existing buildings, etc., were approved, comprising :—

New Dwelling-houses	...	...	...	...	21
Alterations and Additions	12
Miscellaneous	11

Inspection of Houses, etc.

Number of Inspections	426
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In addition, occasional inspections of a more casual nature were made in the poorer districts.

Structural defects remedied	...	...	...	...	69
Drain Defects remedied	...	...	...	...	118
Other defects remedied and nuisances abated	...	...	...	...	42

Housing and Town Planning Act, 1909, Section 17. No houses were closed during the year.

Infectious Diseases.

Owing to the exceptionally large number of notifications, the work of disinfection was heavy. After each notification the infected house was inspected, and where there was a suspicion of defects the drains were thoroughly tested. In all cases the drains were flushed with disinfectant, leaflets containing instructions were issued, and the rooms, bedding, etc., disinfected by means of alformant lamps.

Dairies and Cowsheds.

These have been inspected. All of the Cowsheds are outside the town, and occupied only during winter.

Slaughter-House.

Frequent Inspections have been made, and on each occasion the premises were found clean and well kept. The greatly needed cooling-house has not yet been erected.

Improvements.

The chief improvements during the year were:—

Road Tarring.—The area tarred was 34,700 square yards, at a cost of £125.

The dangerous corner at the junction of Coychurch Road and Cowbridge Road was widened, and a continuous footpath constructed. The cost was £68, towards which a grant of £35 was given by the County Council.

Owing to the need for exercising the strictest economy during the war, several schemes have had to be postponed, including the proposed Council Offices, Baths and Fire Station.

Private Street Works —The back lanes east of the upper end of Acland Road have been made up. Cost, £152.

I am, Gentlemen,

Your obedient Servant,

WALWYN F. TUDOR,

Surveyor and Inspector.

Surveyor's Office, April 2nd, 1916.



